

# Voluntary bass creel survey

Minnesota Bass Federation Meeting

January 21, 2012



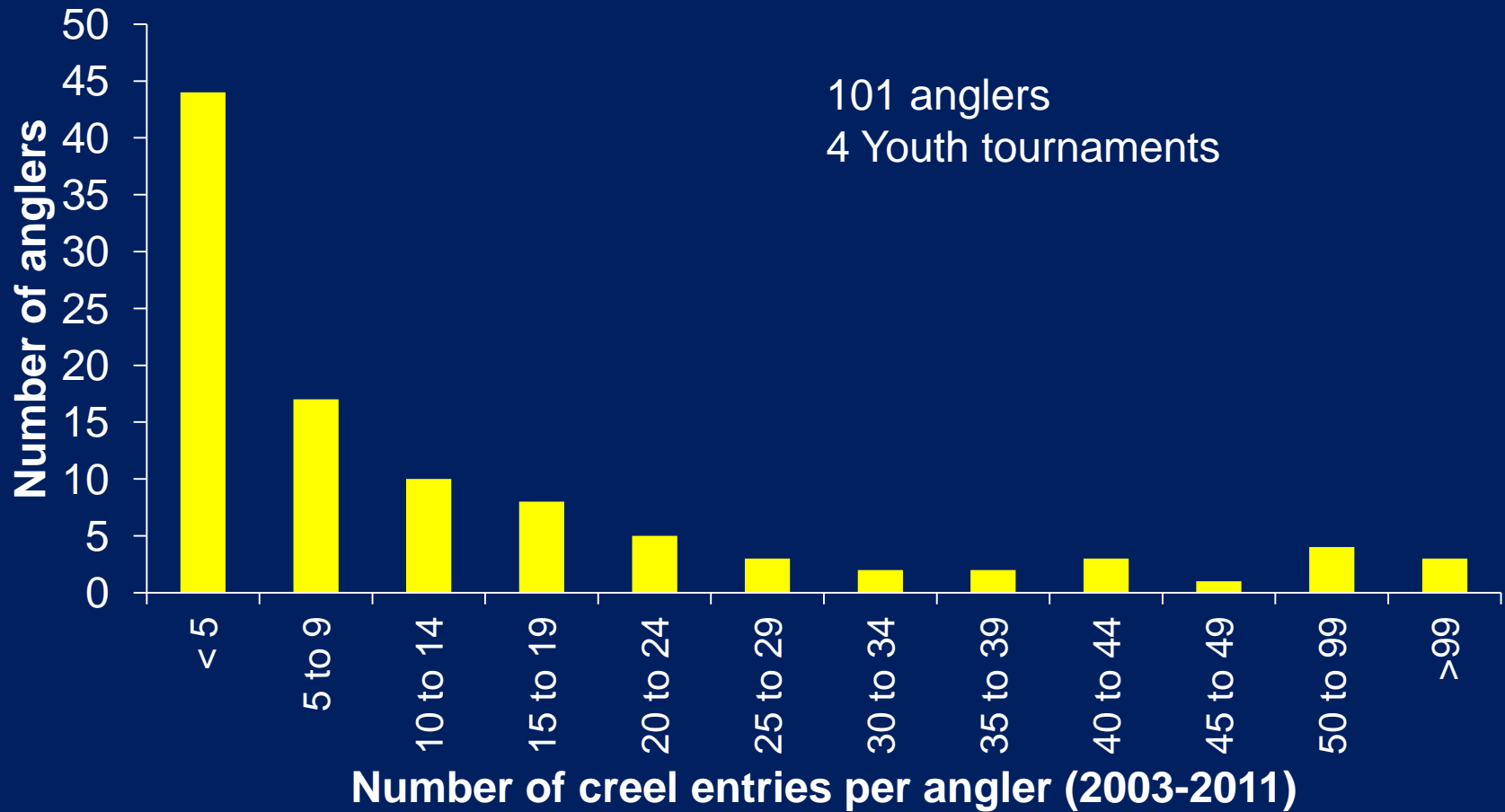
Mike McInerny  
Fisheries Research Scientist  
Minnesota DNR



# Update

- Angler participation
- Numbers of fish reported
- Compare recreational and tournament angling
- Trends in CPH
- What affects CPH?
- Angling and electrofishing
- Trends in length distributions

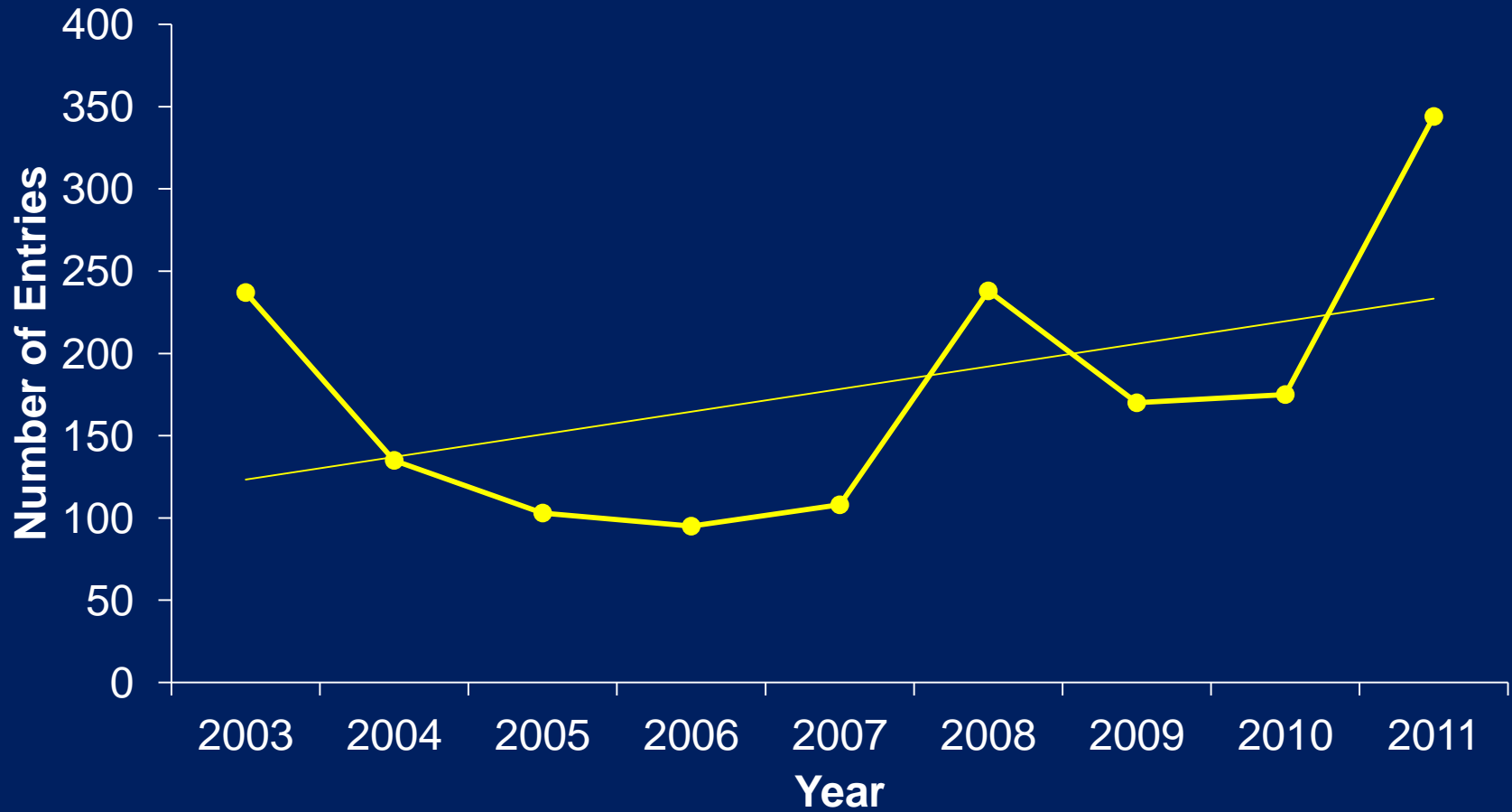
# Angler entries



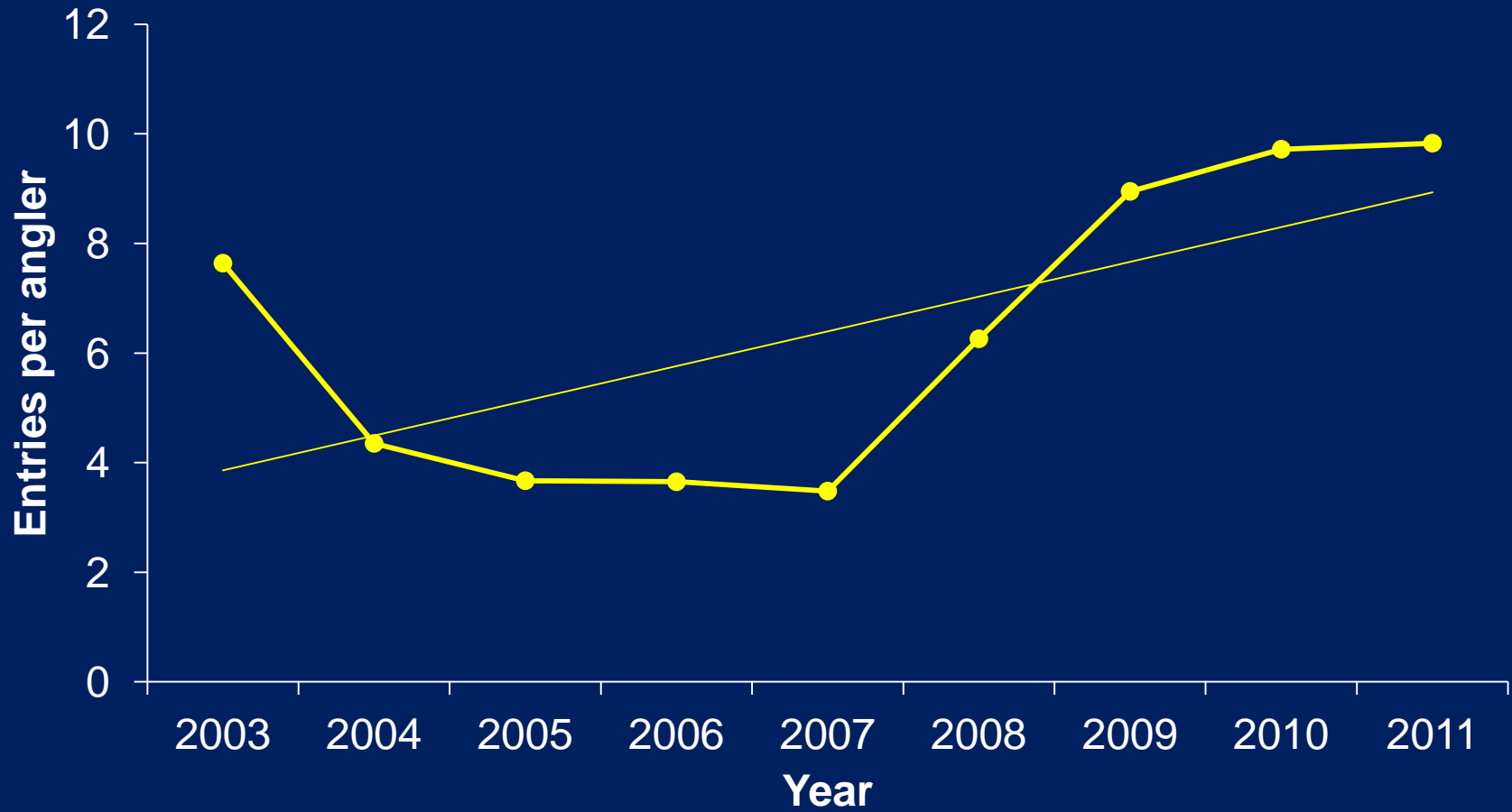
# Angler participation



# Number of entries



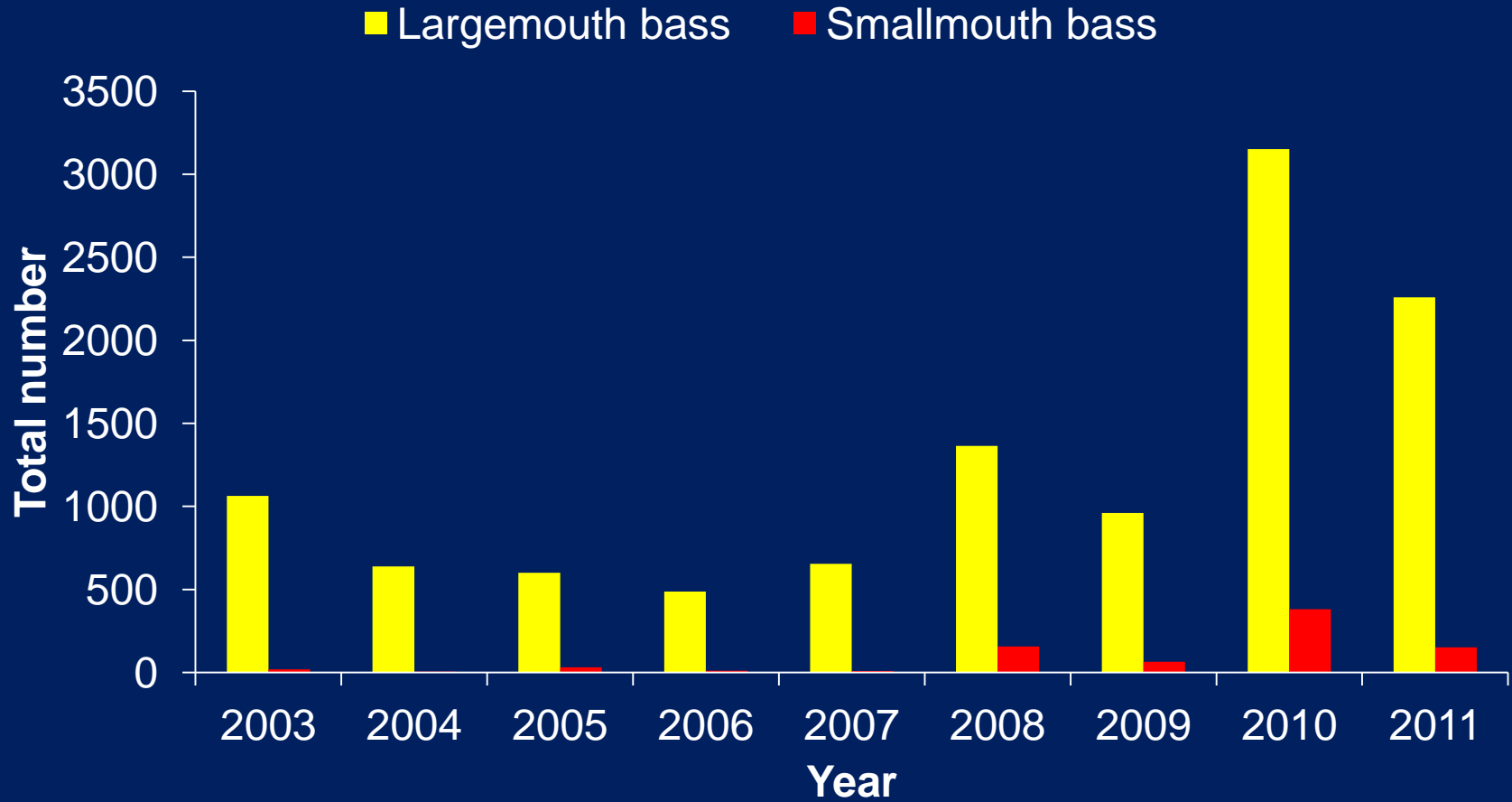
# Entries per angler



# Number of water bodies fished

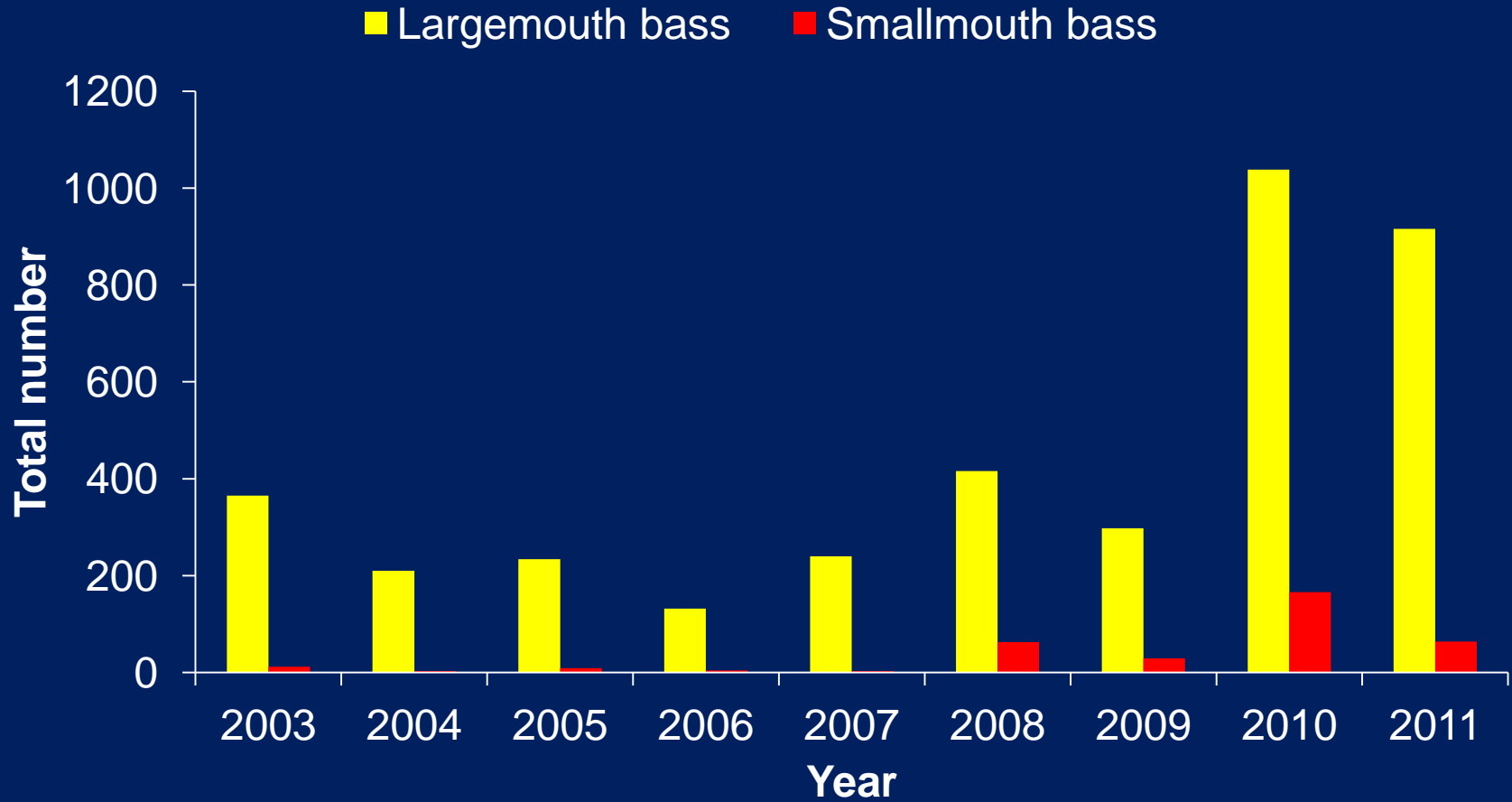


# Number $\geq 12$ " reported

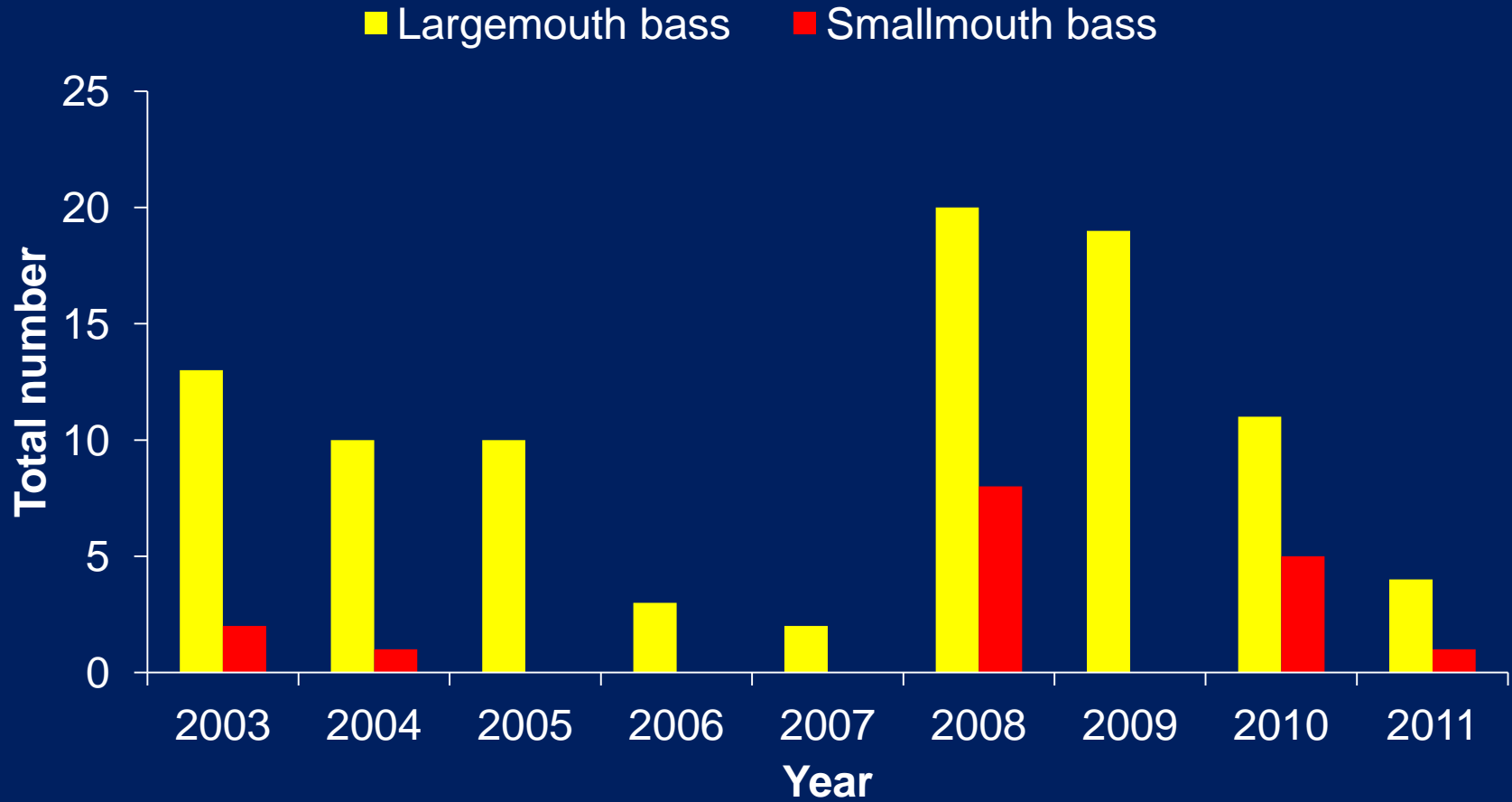




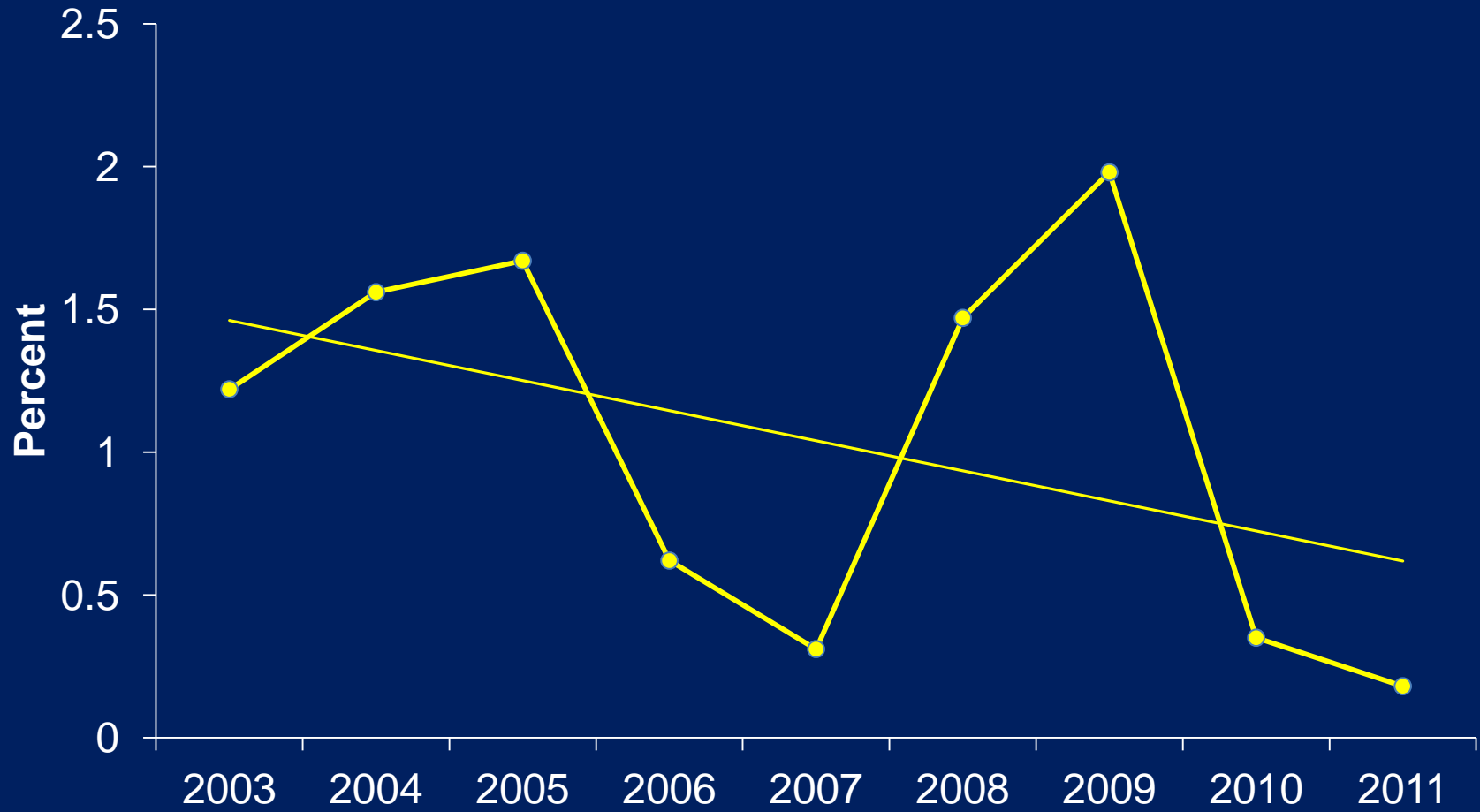
# Number $\geq 15$ " reported



# Number $\geq 20$ " reported

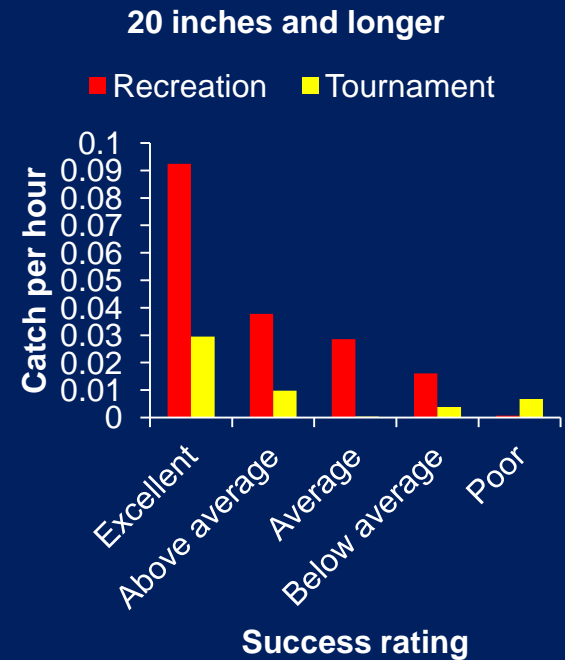
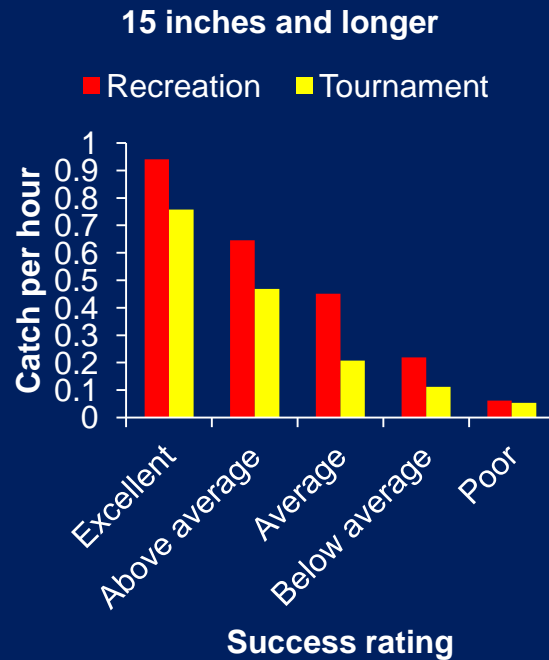
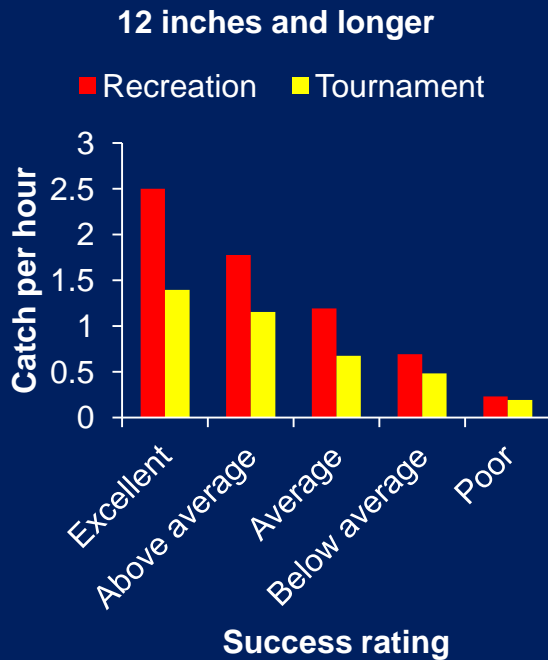


# % of LMB $\geq 12''$ also $\geq 20''$



# Success ratings: Recreation vs tournament

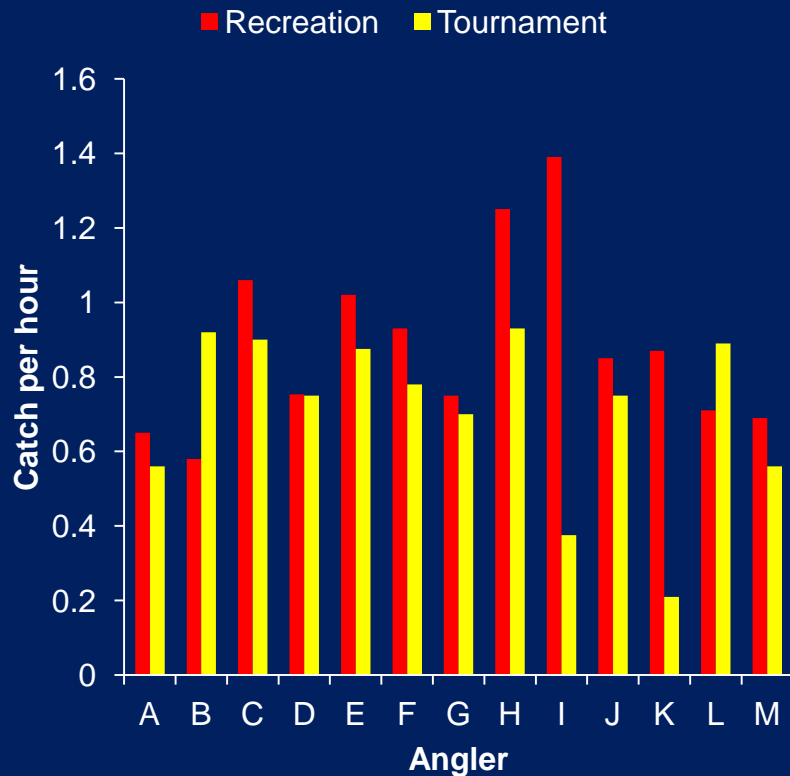
(all anglers; assuming each angler rates success similarly)



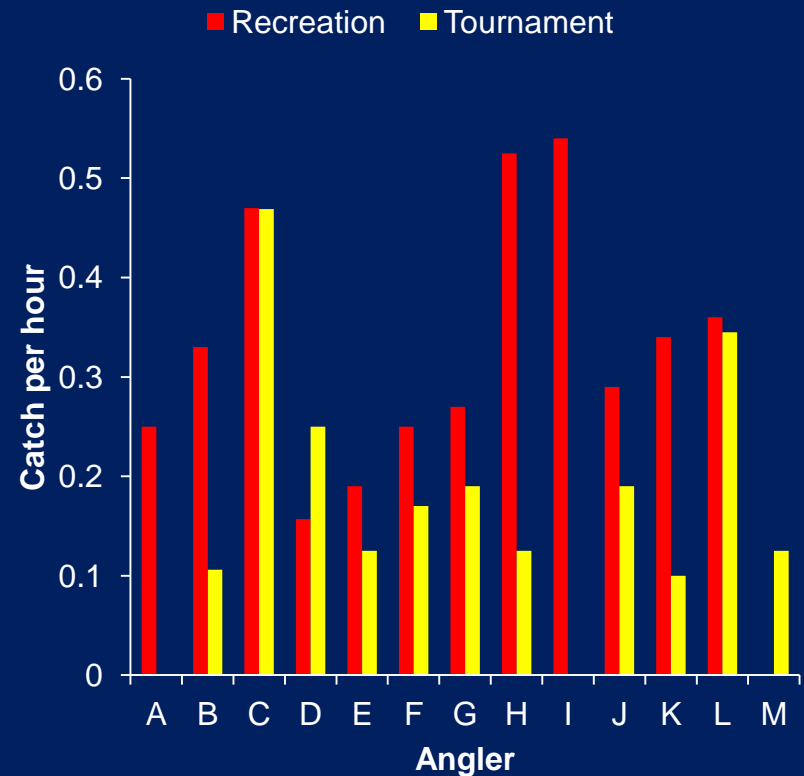
# Recreation vs tournament

(comparisons among anglers; success = average)

## 12 inches and longer

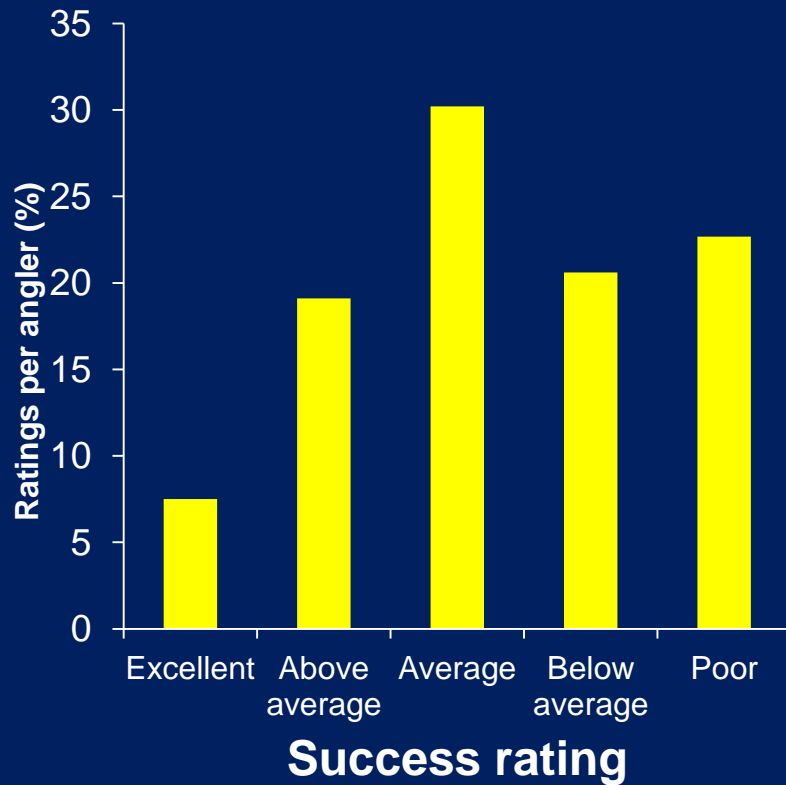


## 15 inches and longer

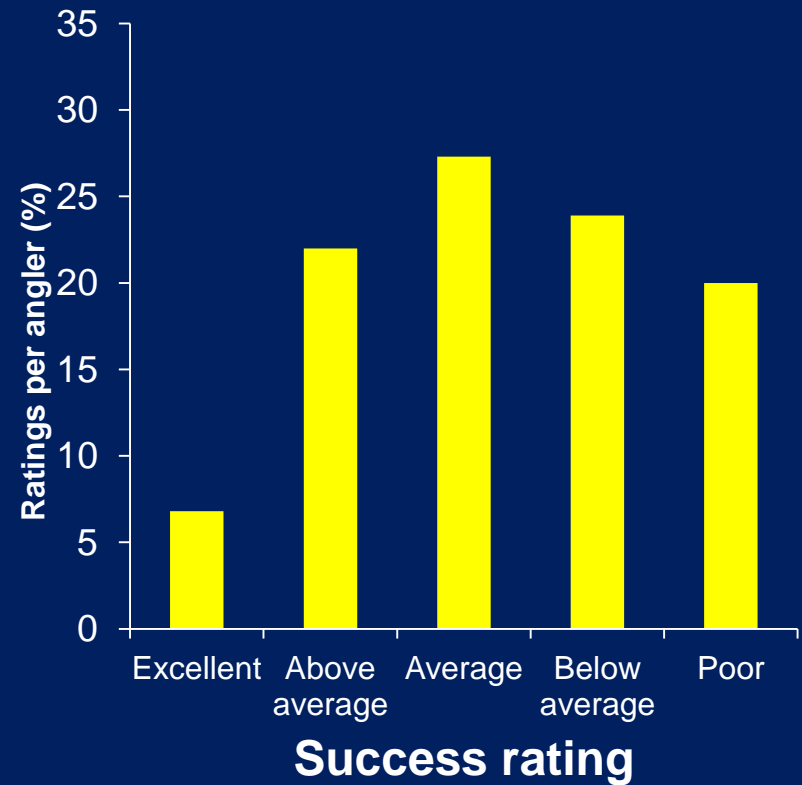


# Distribution of success ratings

## Recreation

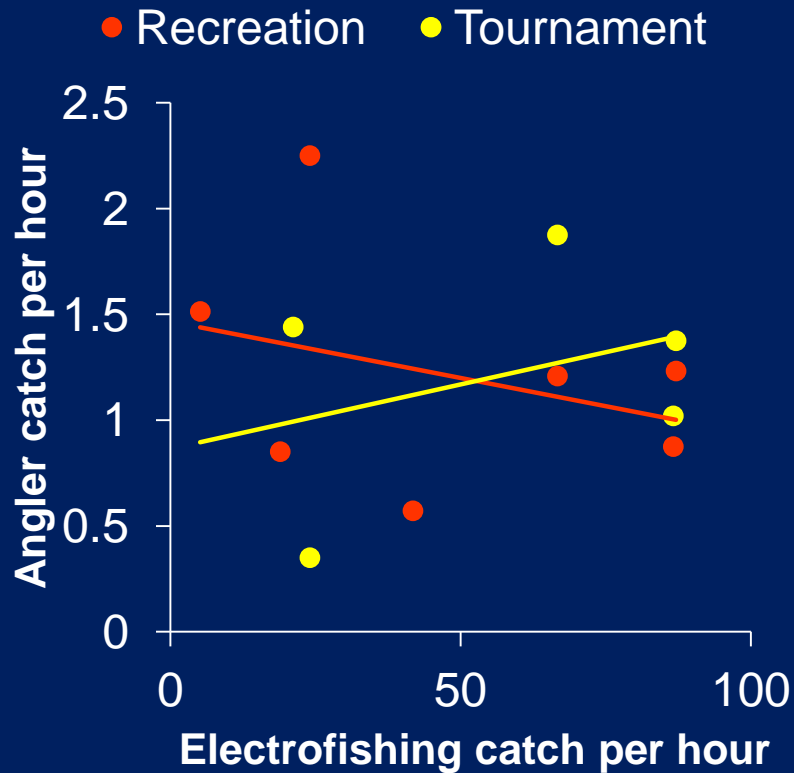


## Tournament

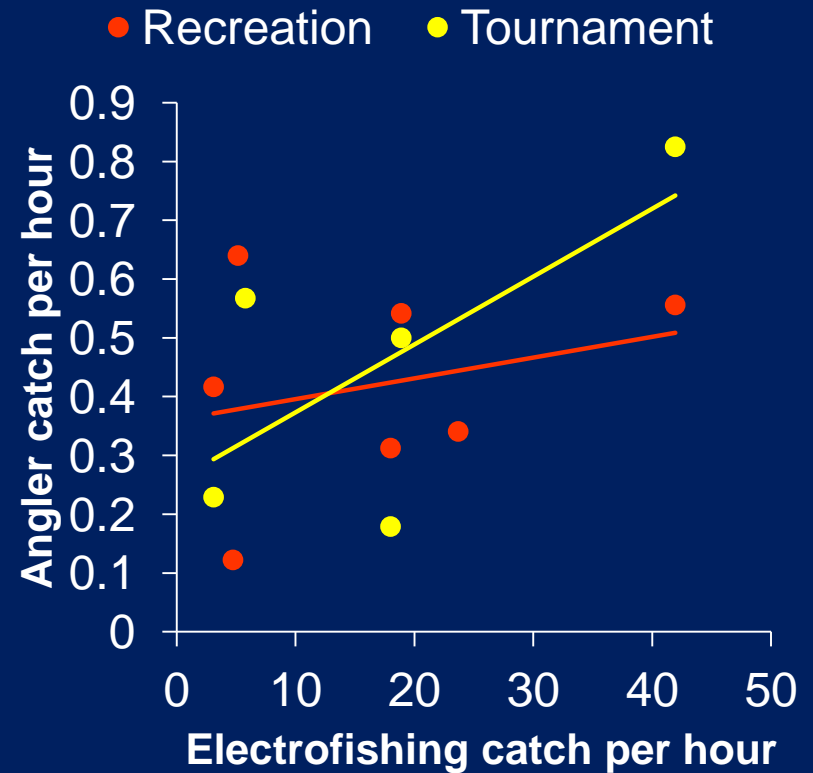


# Angling and electrofishing CPH

## 12 inches and longer



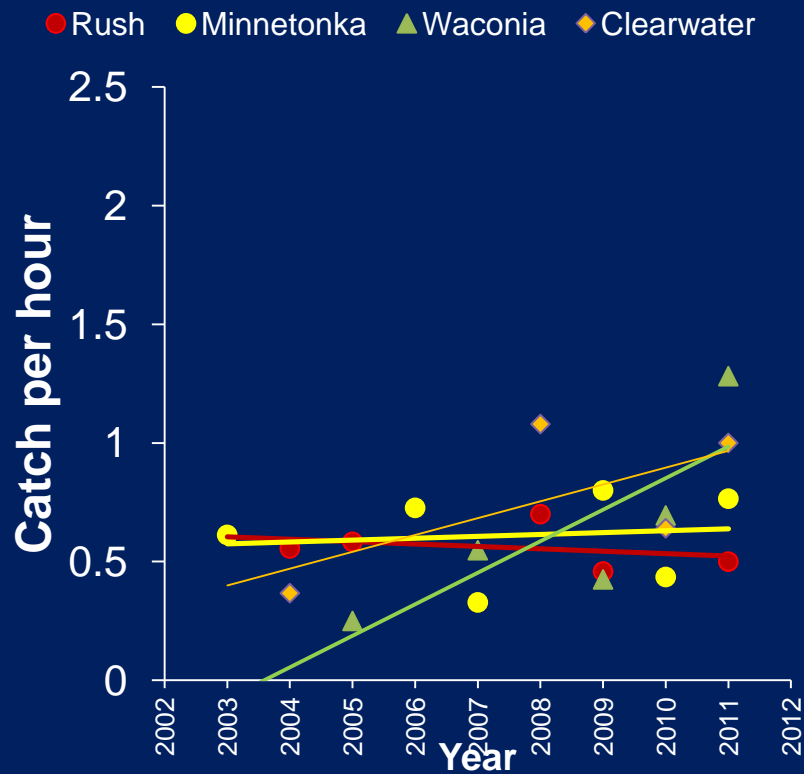
## 15 inches and longer



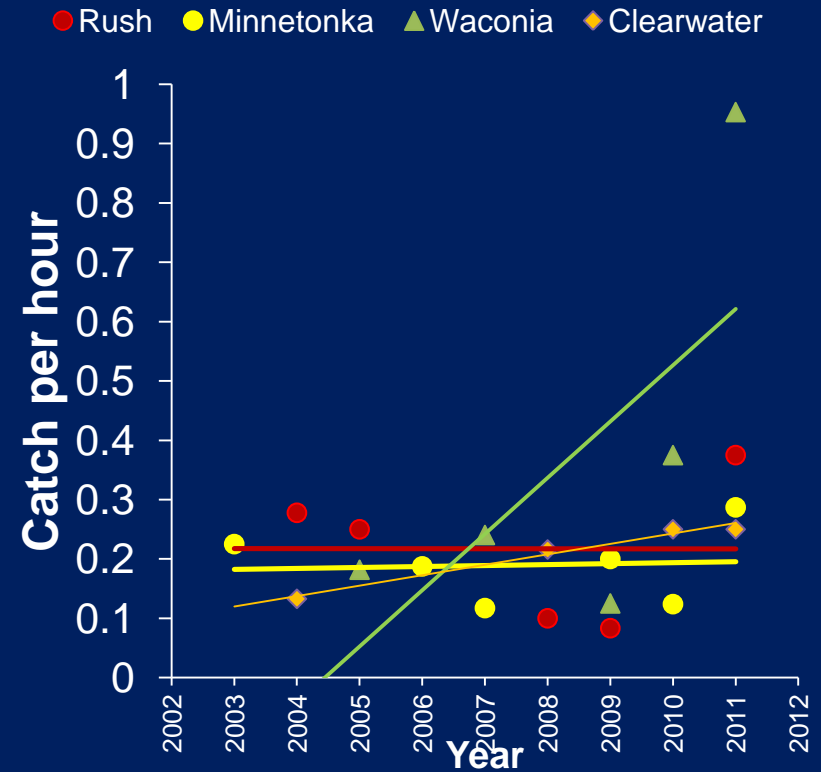
# Annual trends in catch rates by lake

(Tournaments)

## 12 inches and longer



## 15 inches and longer

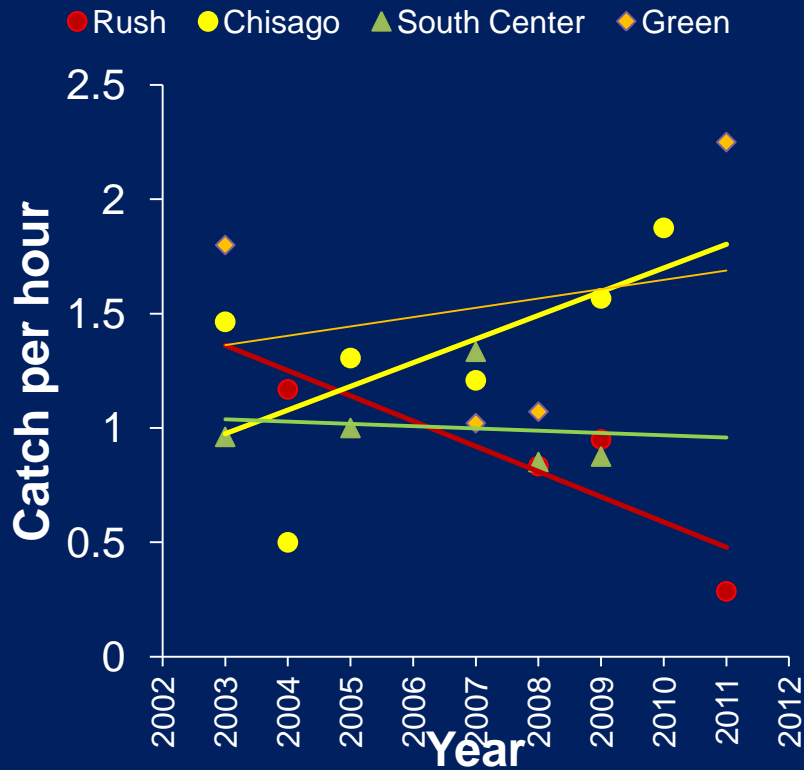




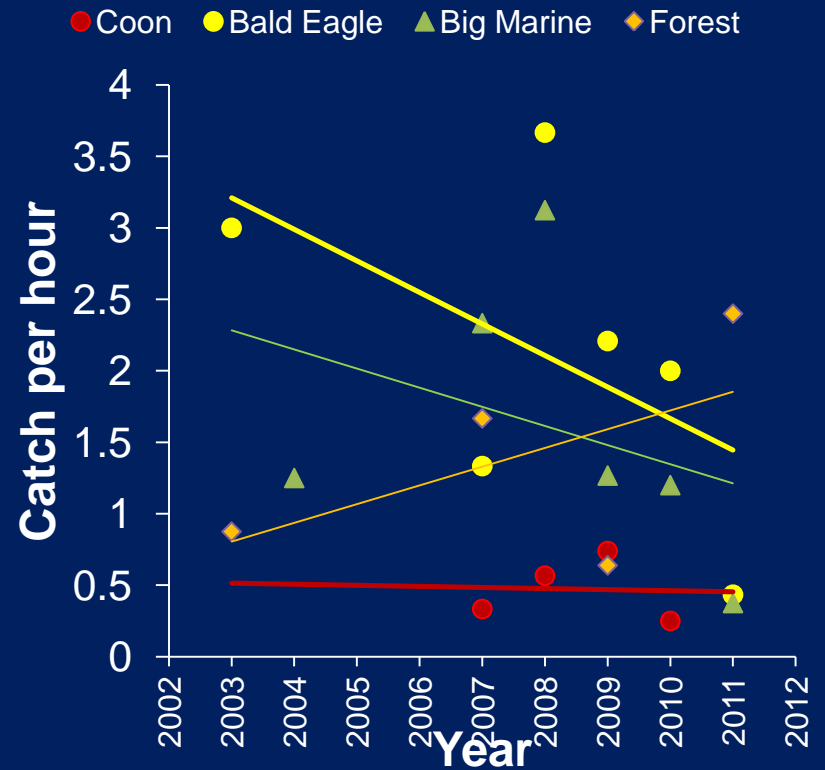
# Annual trends in catch rates by lake

(Recreational fishing; 12 inches and longer)

## Chisago County



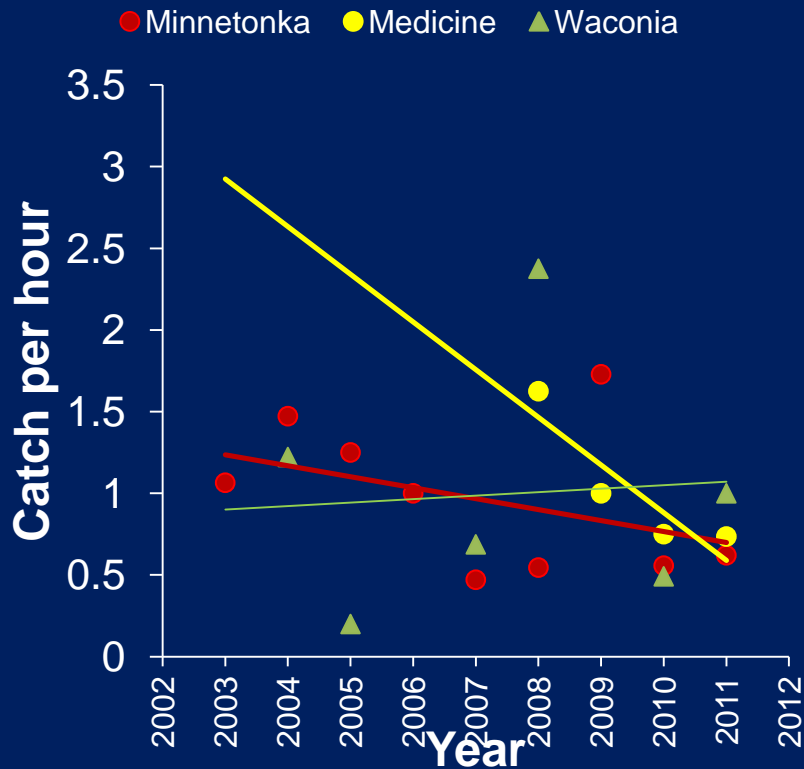
## Anoka, Ramsey, and Washington



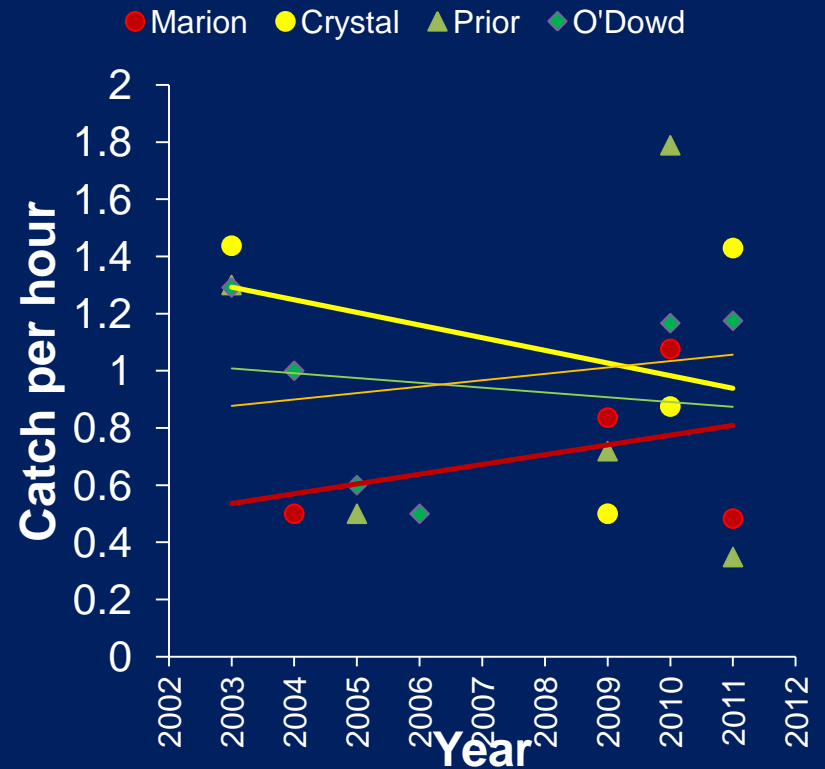
# Annual trends in catch rates by lake

(Recreational fishing; 12 inches and longer)

## Hennepin and Carver counties



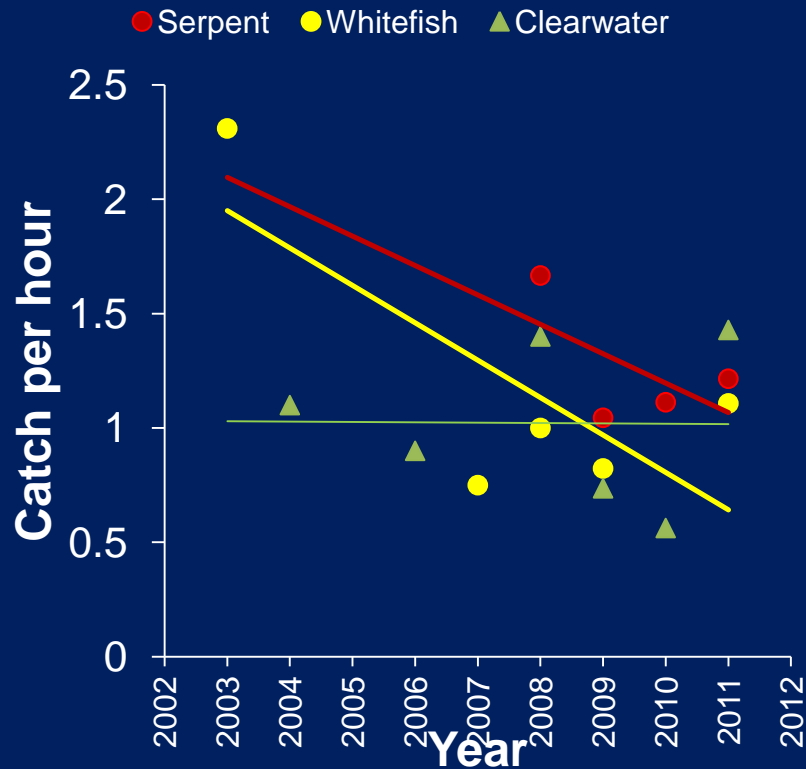
## Dakota and Scott counties



# Annual trends in catch rates by lake

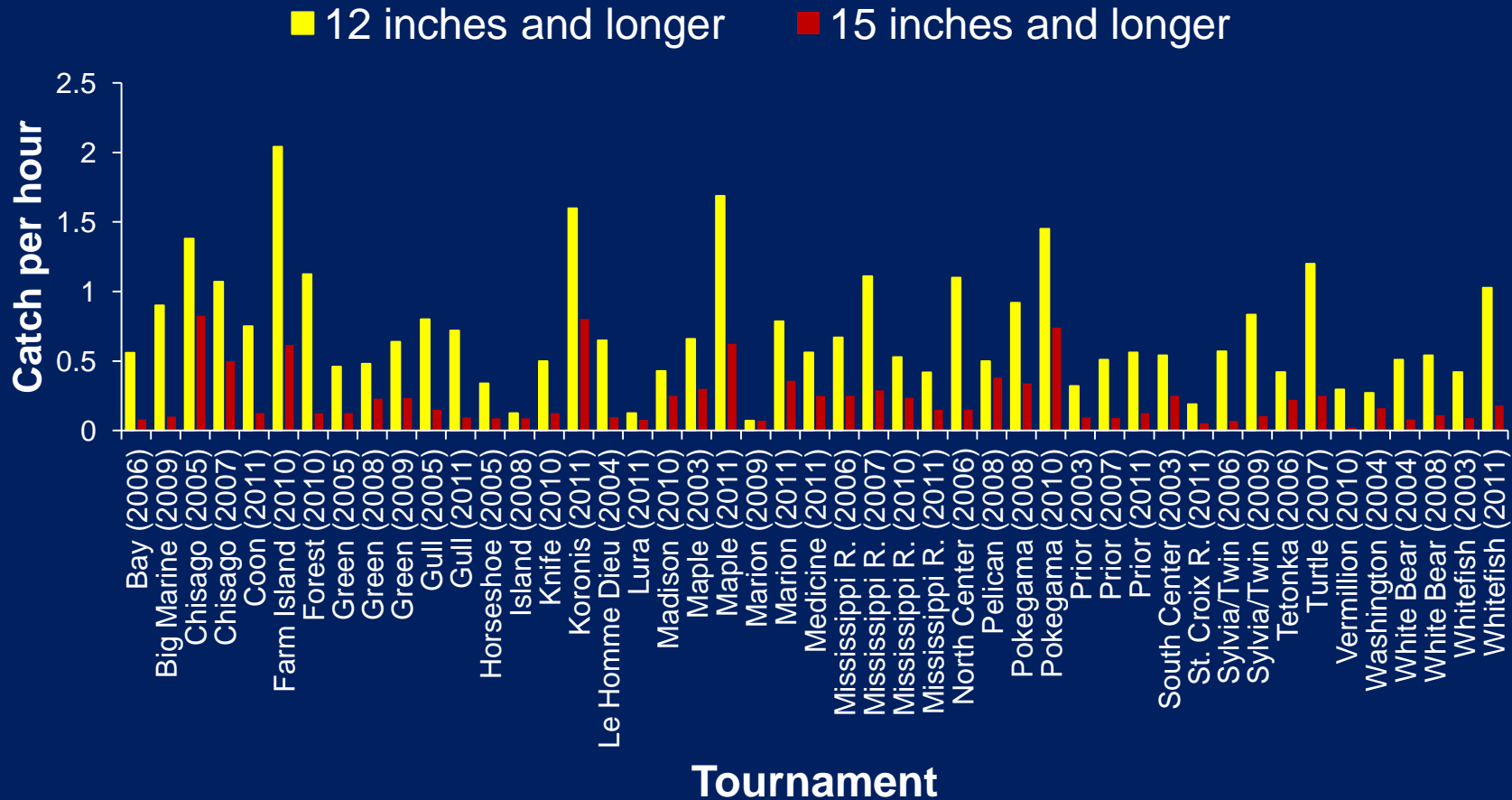
(Recreational fishing; 12 inches and longer)

## Crow Wing and Wright Counties



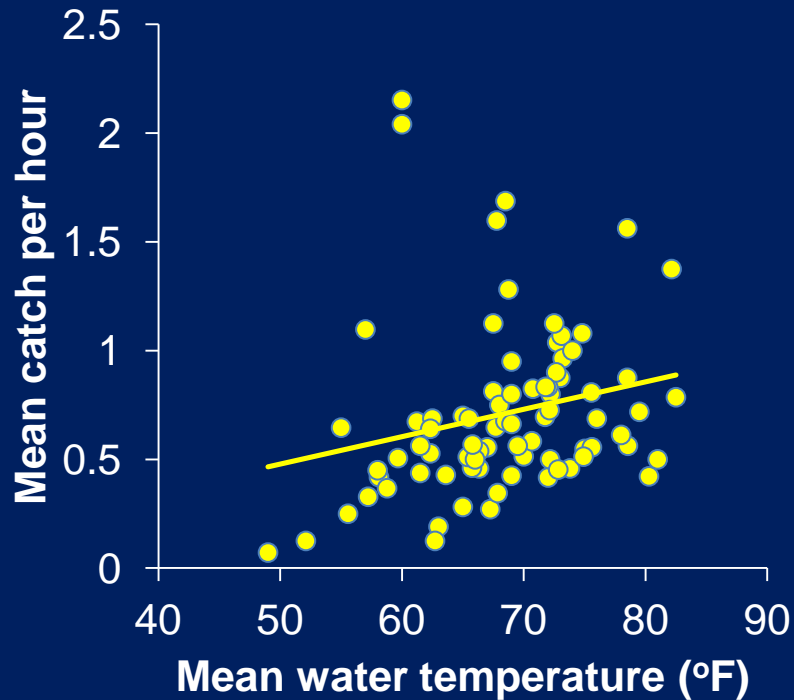
# Catch per hour of largemouth bass by tournament

(excluding Clearwater, Minnetonka, Rush, and Waconia)

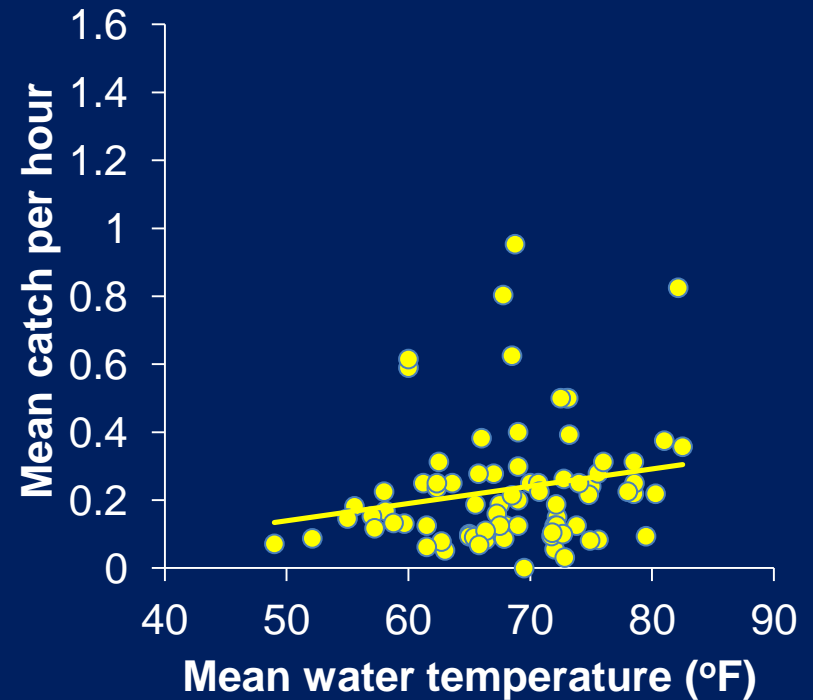


# Mean catch per hour (tournaments) and mean water temperature

## 12 inches and longer

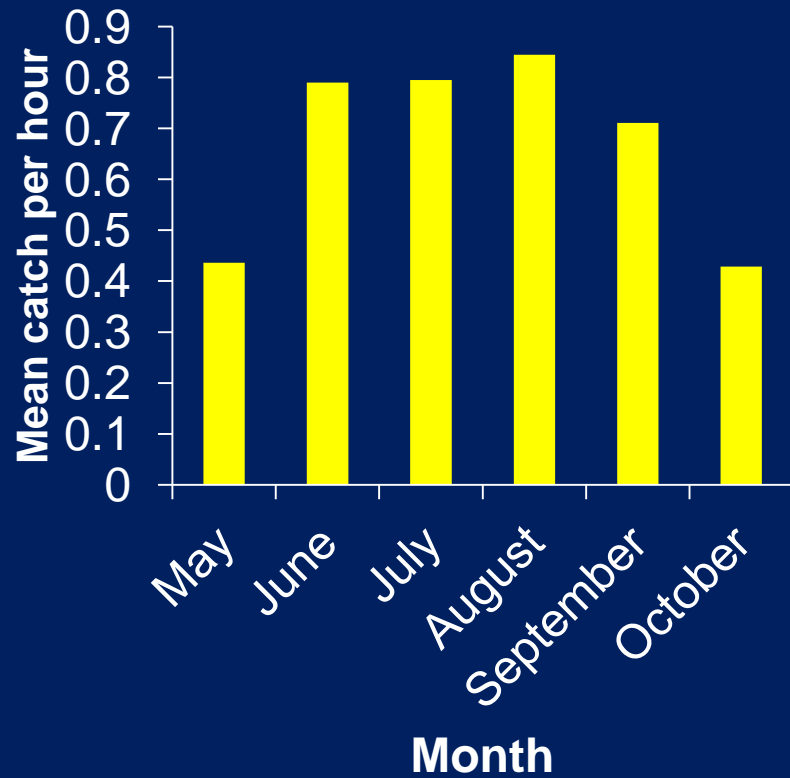


## 15 inches and longer

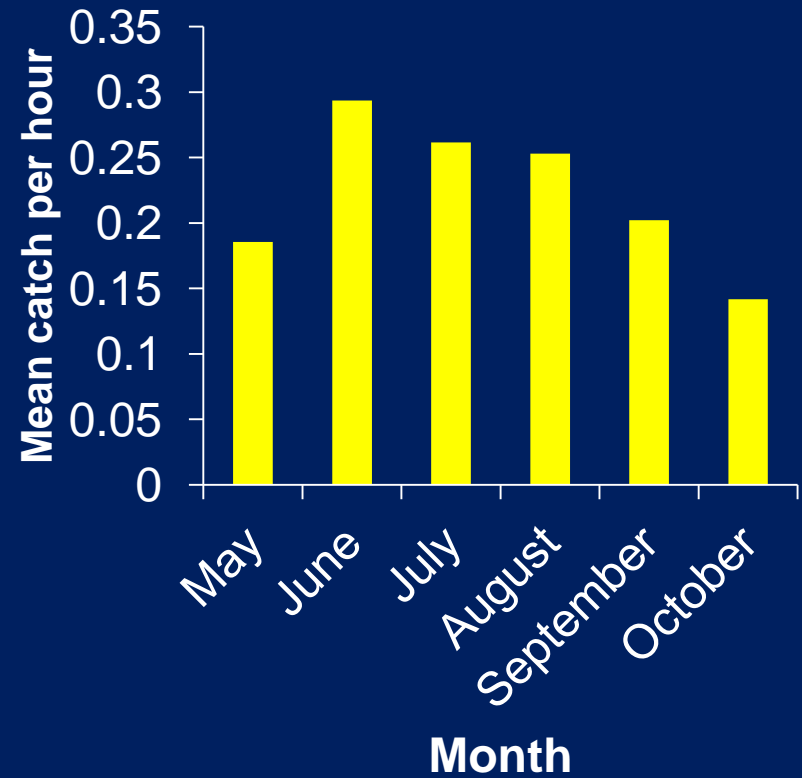


# Mean catch per hour (tournaments) by month

## 12 inches and longer

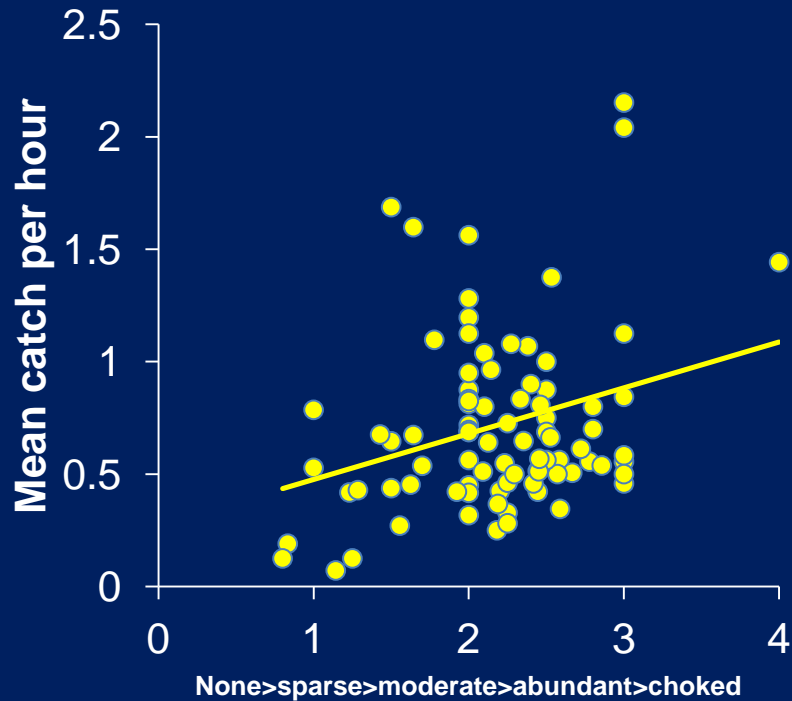


## 15 inches and longer

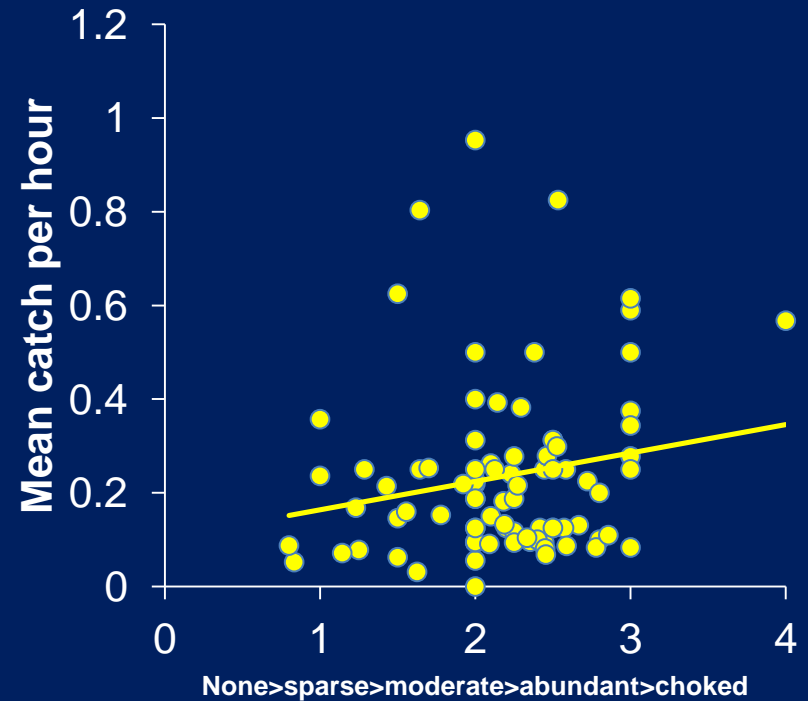


# Mean catch per hour (tournaments) and vegetation

## 12 inches and longer

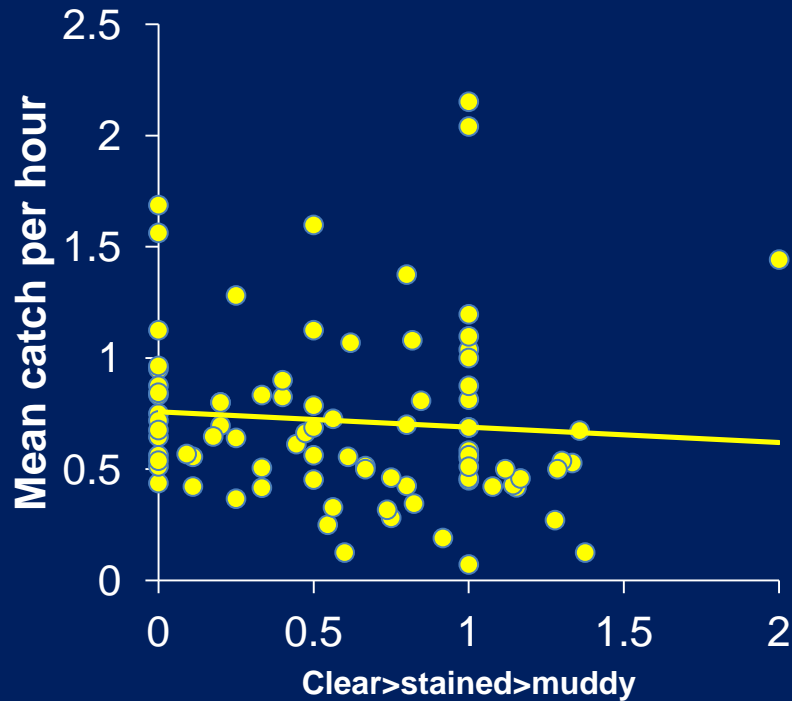


## 15 inches and longer

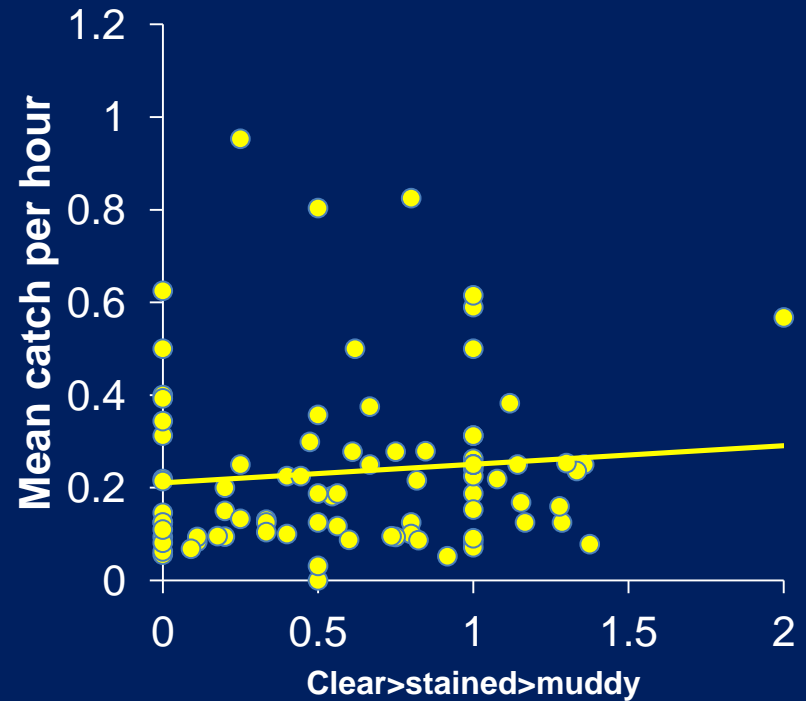


# Mean catch per hour (tournaments) and water clarity

## 12 inches and longer



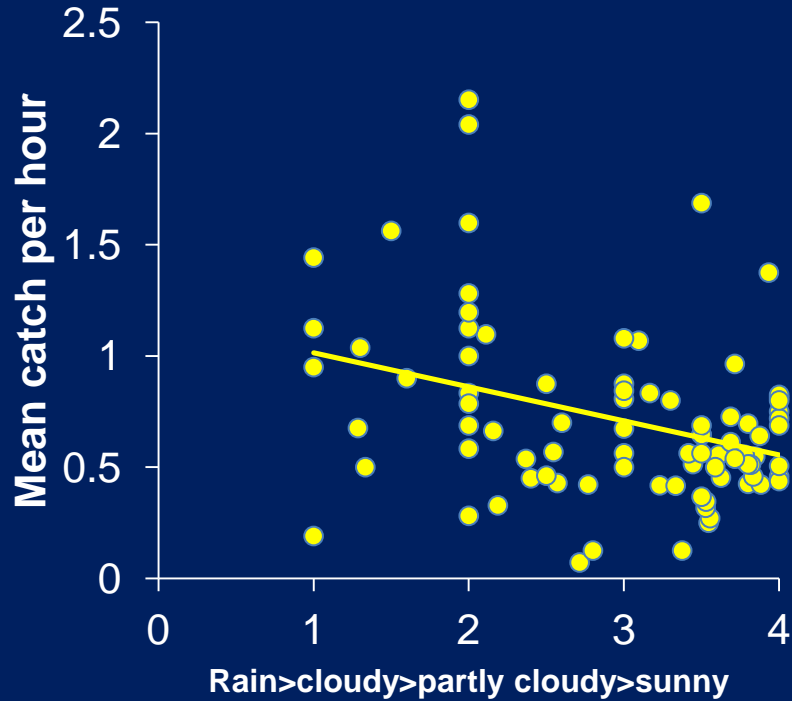
## 15 inches and longer



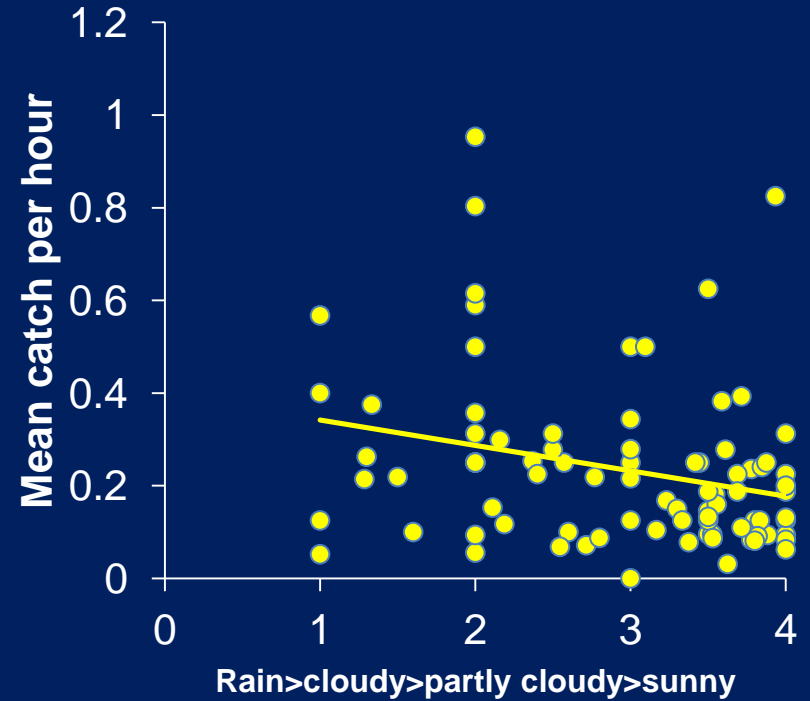


# Mean catch per hour (tournaments) and sky

## 12 inches and longer

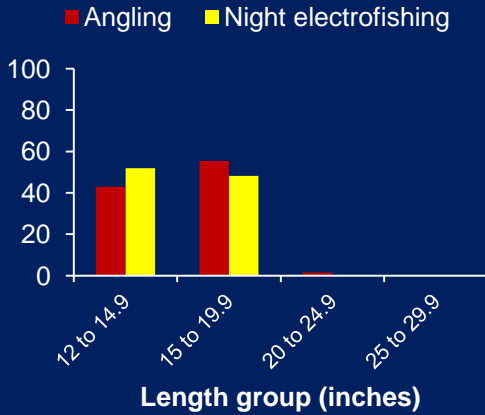


## 15 inches and longer

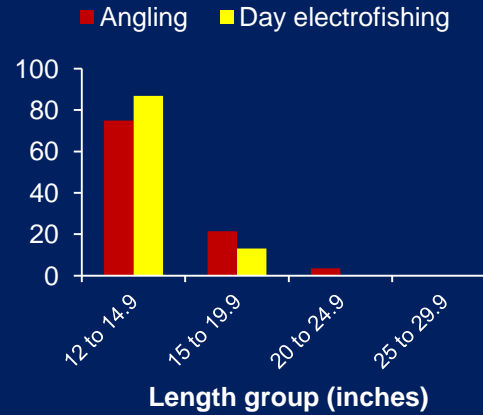


# Length distribution of largemouth bass (angling (rec & tourney) and electrofishing)

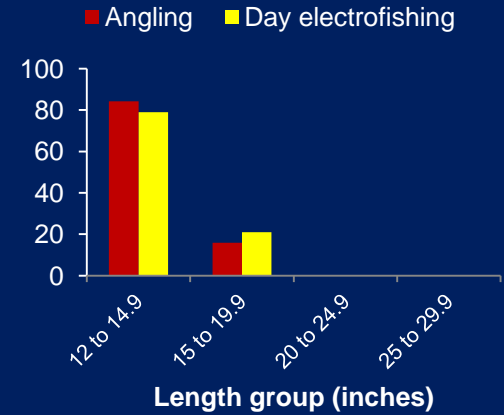
Chisago (2005)



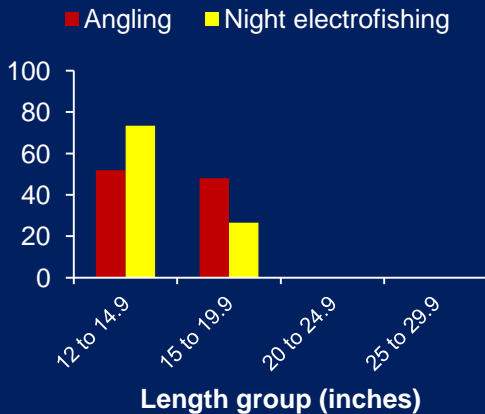
Turtle (2003)



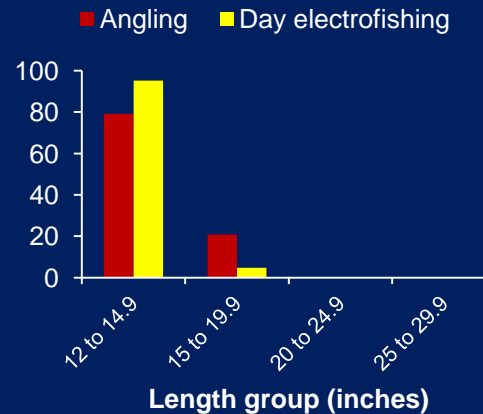
Le Homme Dieu (2004)



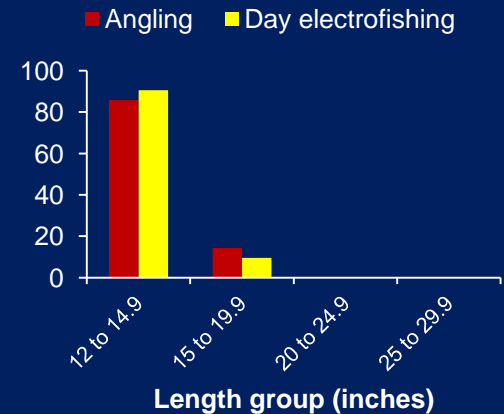
Chisago (2007)\*



Turtle (2007)

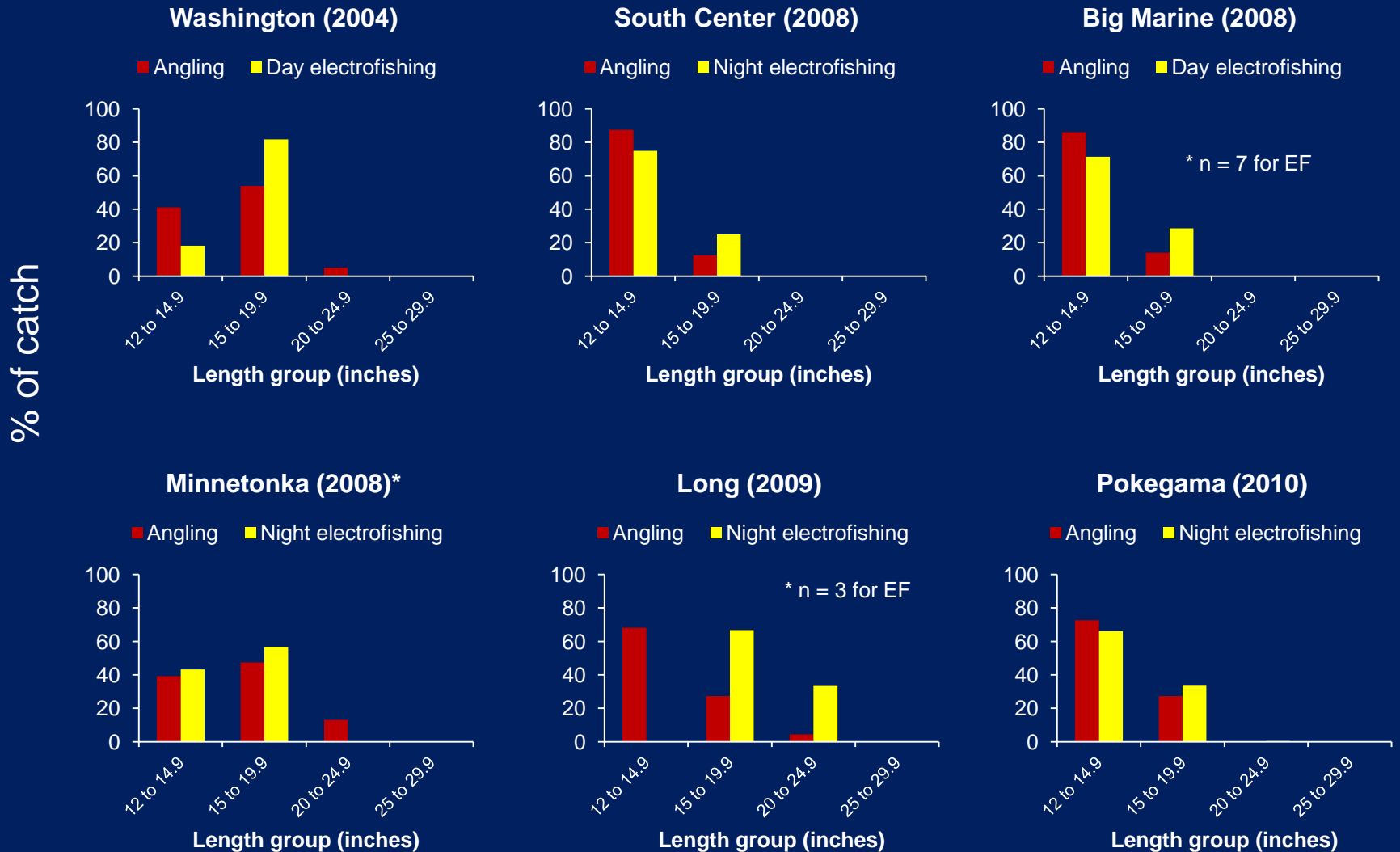


Le Homme Dieu (2008)

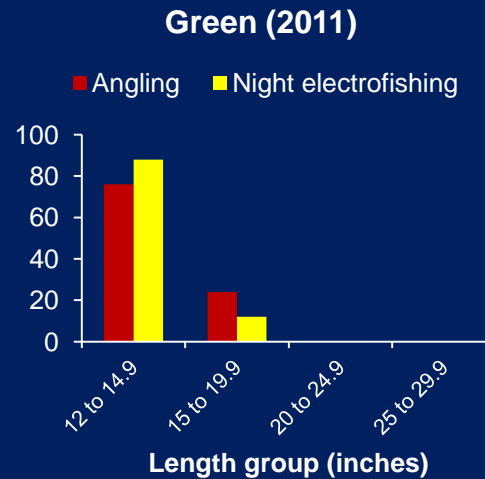
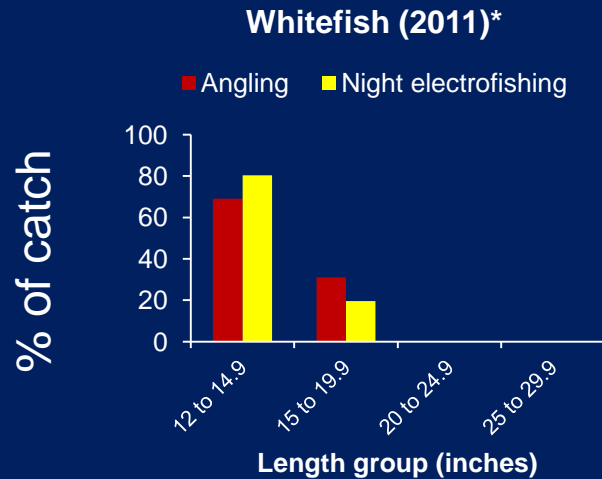


% of catch

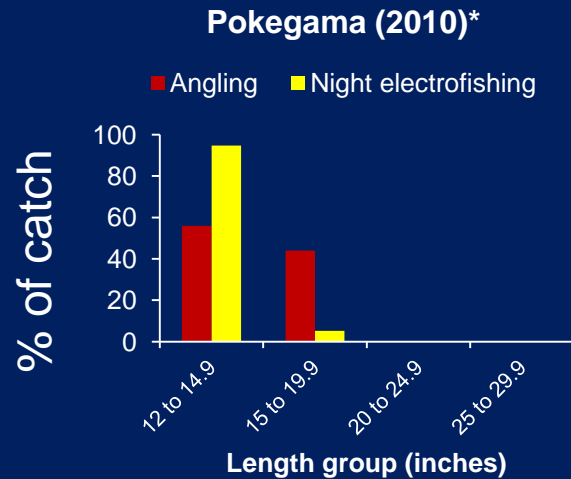
# Length distribution of largemouth bass (angling (rec & tourney) and electrofishing)



# Length distribution of largemouth bass (angling (rec & tourney) and electrofishing)

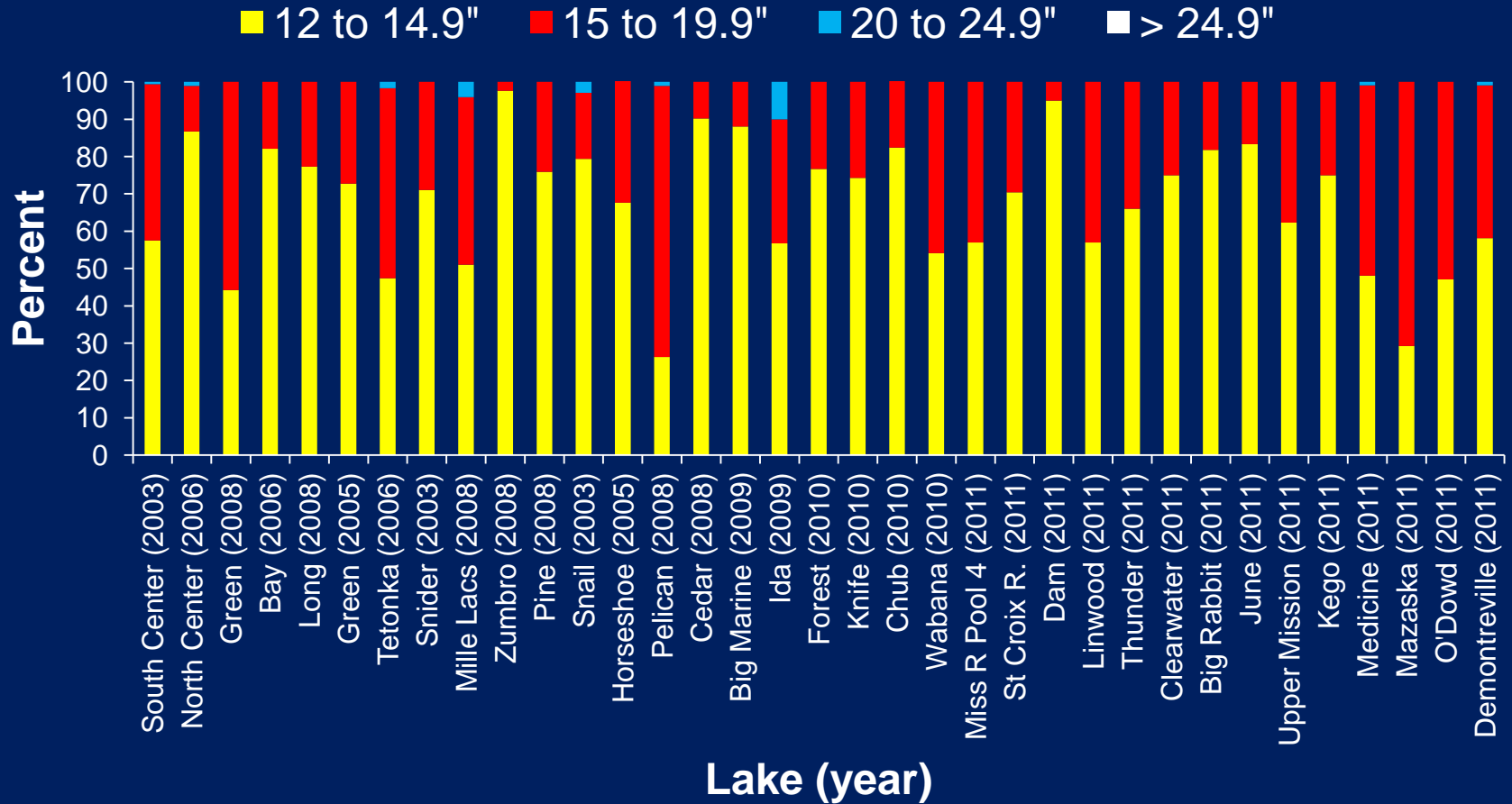


# Length distribution of smallmouth bass (angling (rec & angling) and electrofishing)



# Angler-provided size structure data of largemouth bass

(Lake-year combinations not electrofished by DNR; tournaments & recreation combined)

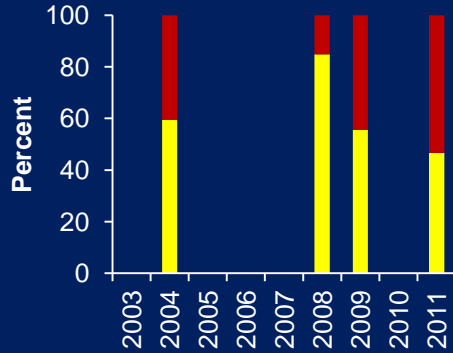


# Size structure of largemouth bass

(angler-provided data;  $n \geq 20$ ; tournaments&recreation combined)

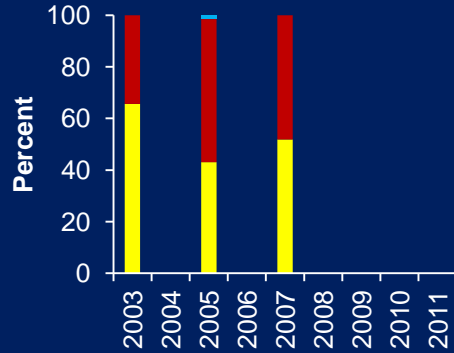
**Rush; Chisago**

■ 12 to 14.9" ■ 15 to 19.9"  
■ 20 to 24.9" ■ > 24.9"



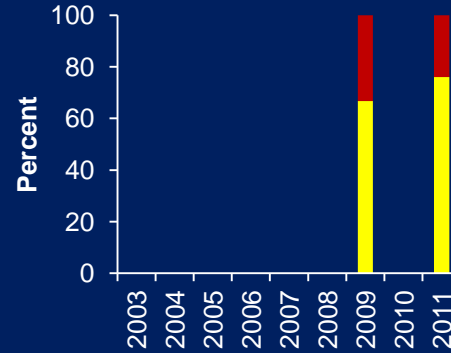
**Chisago; Chisago Co.**

■ 12 to 14.9" ■ 15 to 19.9"  
■ 20 to 24.9" ■ > 24.9"



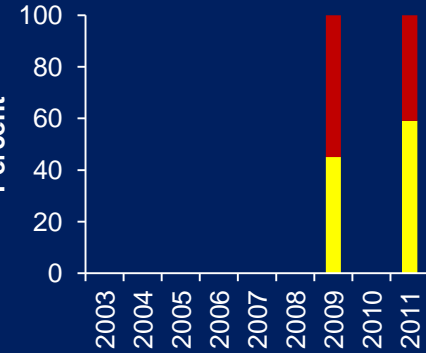
**Green; Chisago Co.**

■ 12 to 14.9" ■ 15 to 19.9"  
■ 20 to 24.9" ■ > 24.9"



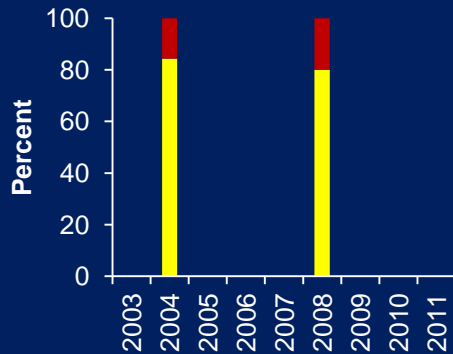
**Coon; Anoka Co.**

■ 12 to 14.9" ■ 15 to 19.9"  
■ 20 to 24.9" ■ > 24.9"



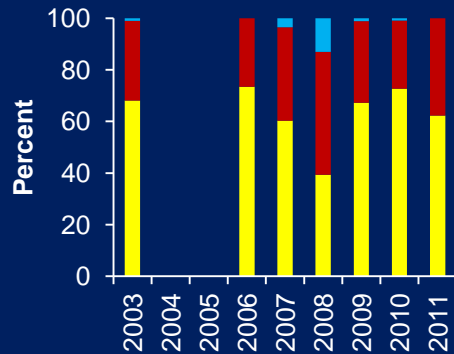
**White Bear; Wash. Co.**

■ 12 to 14.9" ■ 15 to 19.9"  
■ 20 to 24.9" ■ > 24.9"



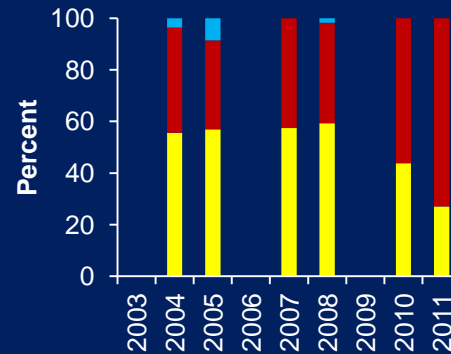
**Minnetonka; Henn. Co.**

■ 12 to 14.9" ■ 15 to 19.9"  
■ 20 to 24.9" ■ > 24.9"



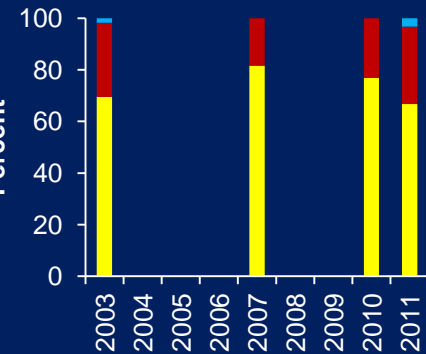
**Waconia; Carver Co.**

■ 12 to 14.9" ■ 15 to 19.9"  
■ 20 to 24.9" ■ > 24.9"



**Prior; Scott Co.**

■ 12 to 14.9" ■ 15 to 19.9"  
■ 20 to 24.9" ■ > 24.9"

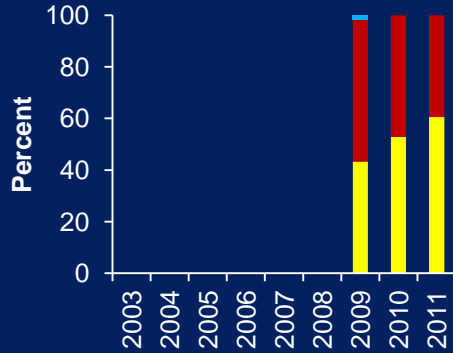


# Size structure of largemouth bass

(angler-provided data;  $n \geq 20$ ; tournaments&recreation combined)

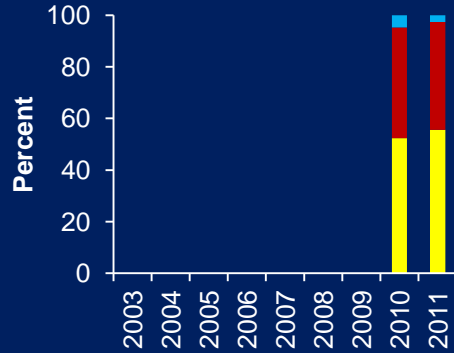
**Marion; Dakota Co.**

■ 12 to 14.9" ■ 15 to 19.9"  
■ 20 to 24.9" ■ > 24.9"



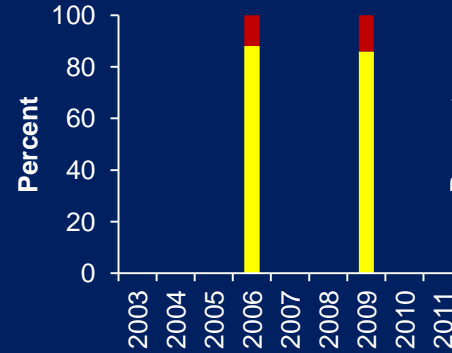
**Crystal; Dakota Co.**

■ 12 to 14.9" ■ 15 to 19.9"  
■ 20 to 24.9" ■ > 24.9"



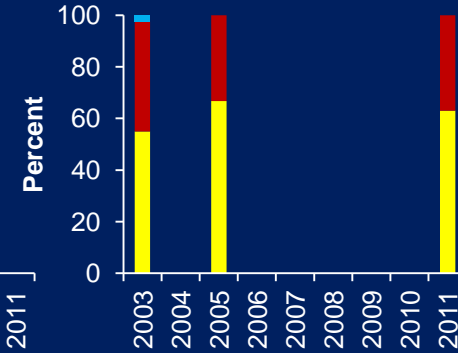
**Sylvia/Twin; Wright Co.**

■ 12 to 14.9" ■ 15 to 19.9"  
■ 20 to 24.9" ■ > 24.9"



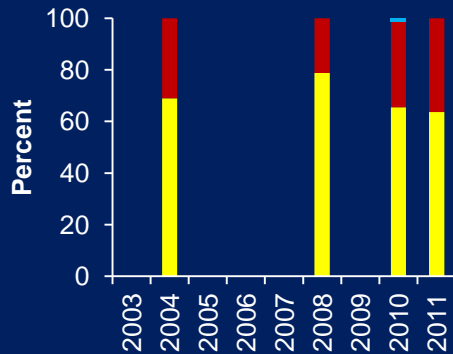
**Maple; Wright Co.**

■ 12 to 14.9" ■ 15 to 19.9"  
■ 20 to 24.9" ■ > 24.9"



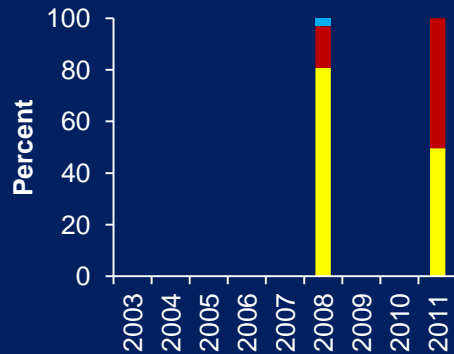
**Clearwater; Wright Co.**

■ 12 to 14.9" ■ 15 to 19.9"  
■ 20 to 24.9" ■ > 24.9"



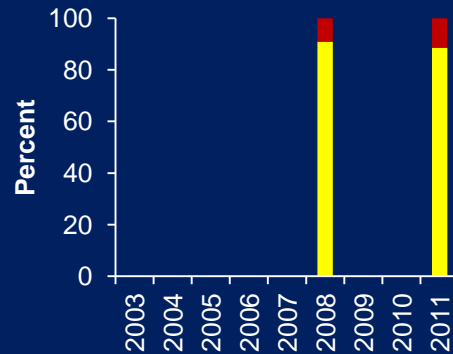
**Koronis; Stearns Co.**

■ 12 to 14.9" ■ 15 to 19.9"  
■ 20 to 24.9" ■ > 24.9"



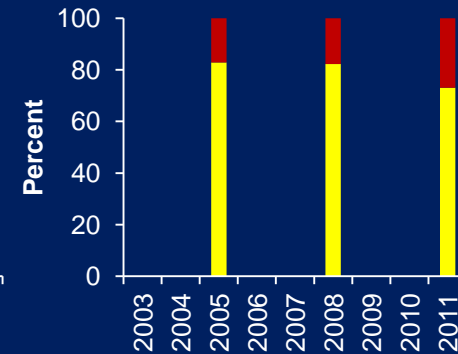
**Alexander; Morrison Co.**

■ 12 to 14.9" ■ 15 to 19.9"  
■ 20 to 24.9" ■ > 24.9"



**Gull; Cass Co.**

■ 12 to 14.9" ■ 15 to 19.9"  
■ 20 to 24.9" ■ > 24.9"



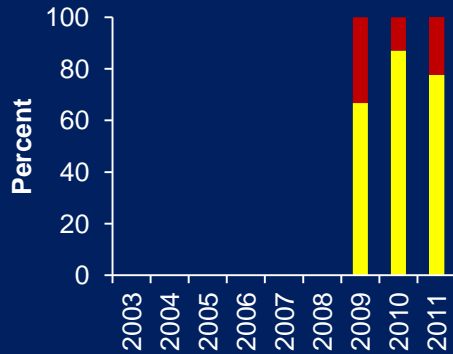


# Size structure of largemouth bass

(angler-provided data;  $n \geq 20$ ; tournaments&recreation combined)

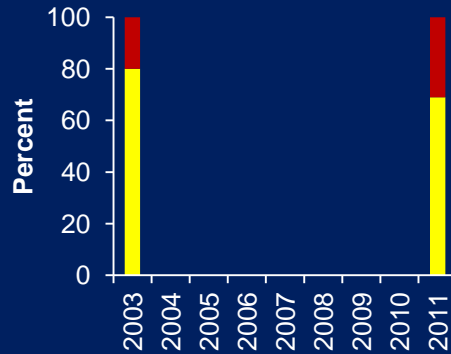
Serpent; Crow Wing Co.

■ 12 to 14.9" ■ 15 to 19.9"  
■ 20 to 24.9" ■ > 24.9"



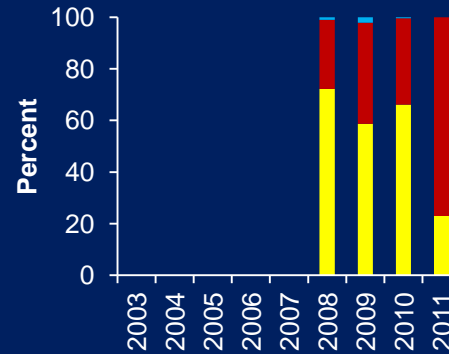
Whitefish; Crow Wing Co.

■ 12 to 14.9" ■ 15 to 19.9"  
■ 20 to 24.9" ■ > 24.9"



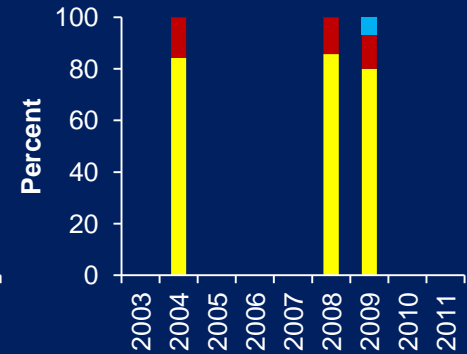
Pokegama; Itasca Co.

■ 12 to 14.9" ■ 15 to 19.9"  
■ 20 to 24.9" ■ > 24.9"



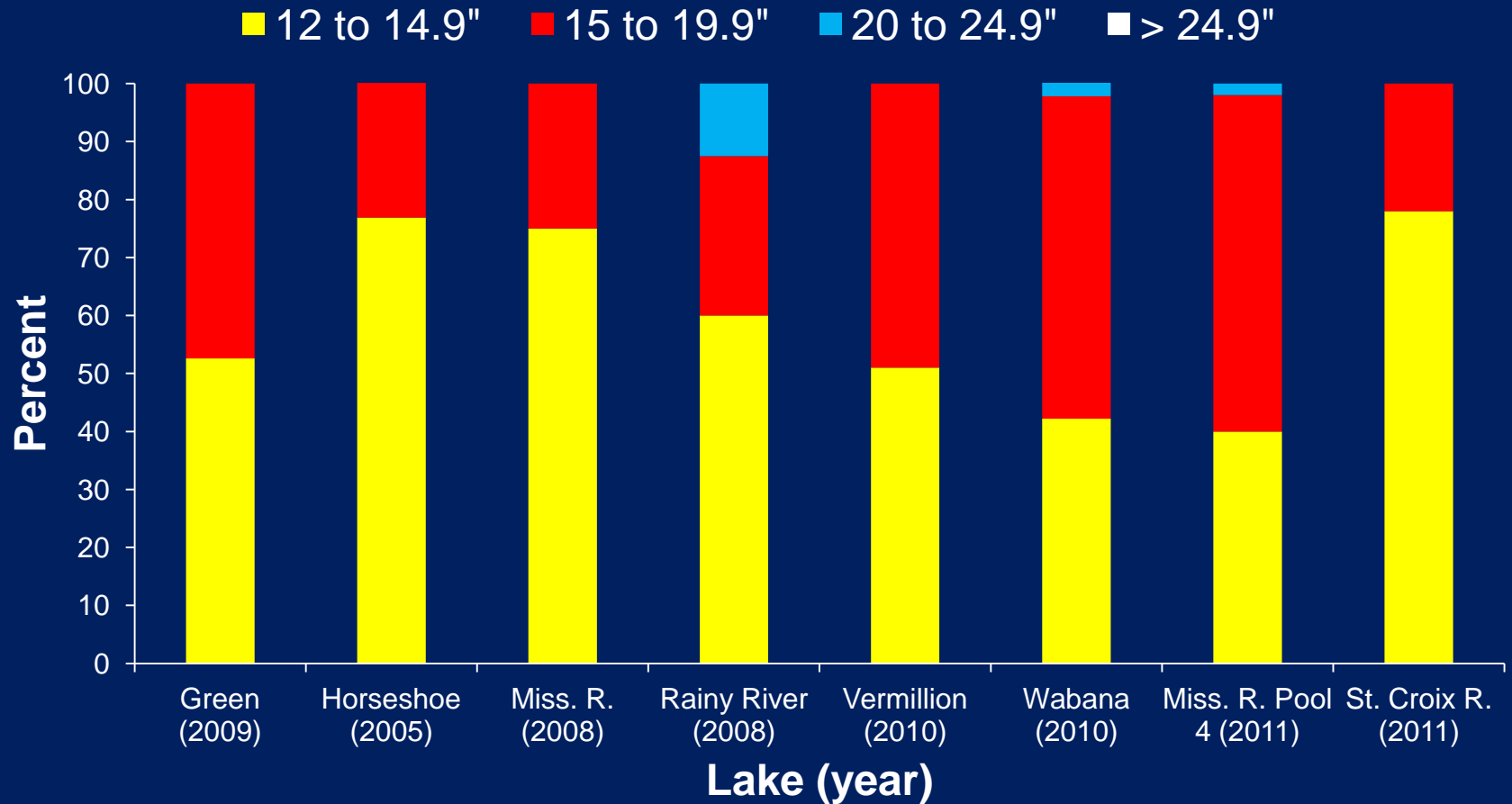
LeHommeDieu; Doug. Co.

■ 12 to 14.9" ■ 15 to 19.9"  
■ 20 to 24.9" ■ > 24.9"



# Size structure of smallmouth bass

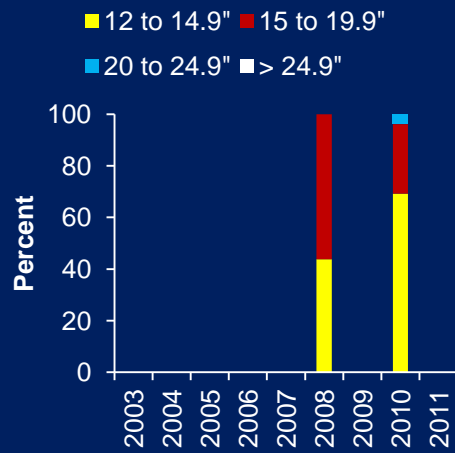
(angler-provided data;  $n \geq 20$ ; tournaments & recreation combined)



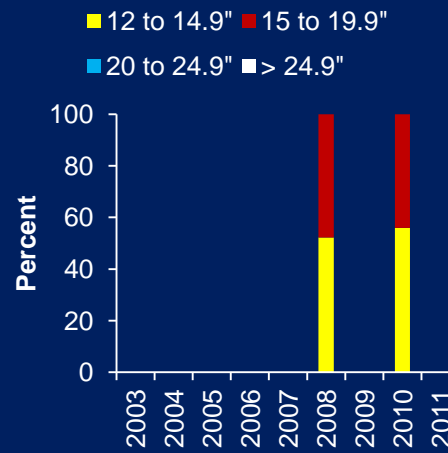
# Size structure of smallmouth bass

(angler-provided data;  $n \geq 20$ ; tournaments&recreation combined)

Island Res.; St. Louis Co.



Pokegama; Itasca Co.



# Summary

- Good participation by anglers
- Rec. CPH > Tourney CPH
- Tourney CPH ~ LMB abundance
- Recreation CPH?
- CPH better in veg., summer, and rainy days
- Valuable length data for both species
- Beginning of long-term data sets on CPH and length distributions

# How to get started?



- [www.mnbfm.org](http://www.mnbfm.org)
- Click: 'DNR Creel survey'
- Click: 'Getting started'
- Questions: Mickey Goetting

